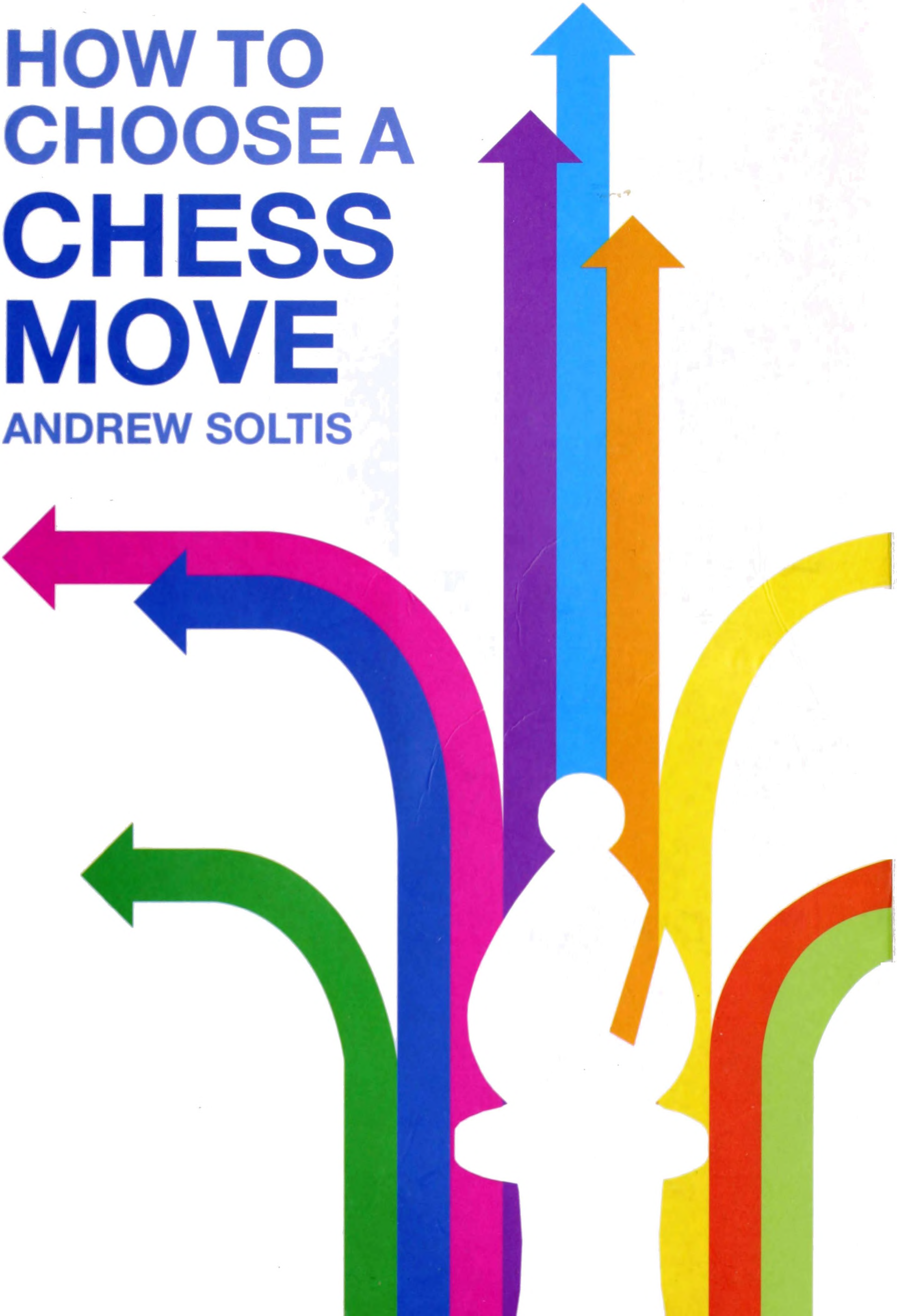
BATSFORD CHESS

HOW TO CHOOSE A CHESS MOVE

ANDREW SOLTIS



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Andrew Soltis

BATSFORD

First published in the United Kingdom in 2005 by
Batsford
151 Freston Road
London
W10 6TH

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ISBN-13 9780713489798
ISBN-10 0 7134 8979 0

A CIP catalogue record for this book is available from the British Library.

10 9 8 7 6 5 4 3 2

Printed and bound by Creative Print and Design (Wales), Ebbw Vale

This book can be ordered direct from the publisher at the website:
www.anovabooks.com, or try your local bookshop

Distributed in the United States and Canada by
Sterling Publishing Co.,
387 Park Avenue South, New York, NY 10016, USA

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Introduction

What enables one person to play better chess than another? The traditional answers begin with tactical vision, positional understanding and endgame technique. Less conventional answers include imagination, ability to concentrate and physical stamina.

But what is rarely mentioned, and yet may be the most important factor, is simply the ability to spot good moves, to evaluate them quickly and accurately and to choose the best of them to play on the board. These are the basic mechanics of move selection – the addition, subtraction, multiplication and division of chess.

Traditionally masters have revealed little about how they actually choose moves. In their annotations they commented at length on their opponent's moves but concealed their own thoughts in vague comments such as "Also possible was ..."

What's worse, they sometimes lied. Richard Reti famously said:

"Those chess lovers who ask me how many moves I usually calculate in advance when making a combination are always astonished when I reply, quite truthfully, 'As a rule not a single one.'"

"Not a single one"? Anyone who looks at Reti's many wonderful combinations will see they simply could not be played without exact calculation several moves into the future. Reti suggests he was able to skip the arithmetic of chess entirely. Quite truthfully, this is nonsense.

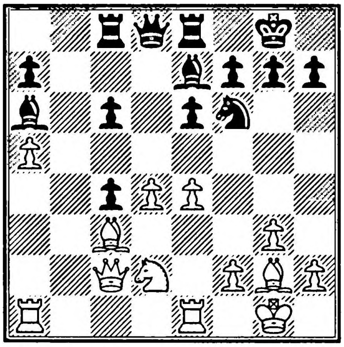
But in recent years there's been a change in the way many masters describe their thinking processes. When they annotate their games they often reveal, for example, which alternatives they considered and why they preferred one over another. Their candor helped provide insight for this book and examples of how to choose a chess move.

1: Your Move

Selecting a good chess move is a remarkably complex task. By the time we begin to take the game seriously, by reading books or playing in tournaments, we've forgotten how extraordinarily difficult the process is.

We've forgotten because we take for granted various time-saving steps. Without those shortcuts, selecting one move from the dozens of possibilities would seem impossible.

Bologan-Kramnik
Dortmund 2004



White to play

White has 40 legal moves at his disposal and that's typical for the start of the middlegame. At this event, one of the strongest tournaments in recent years, White had an average of 38 possibilities when making his 20th move. Black had an average of 34 possibilities when he replied.

But only a computer examines 34, 38, or 40 moves in a given position. The beginner learns to immediately dismiss some moves. Here, for example, there are six gross blunders, such as 20 ♕d3??? and 20 ♗b4??. That leads the beginner to the same cardinal rule as physicians: First, do no harm. You can automatically rule out the moves that make your position worse.

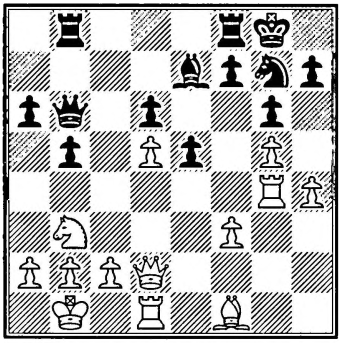
It takes more experience to realize that other moves – such as 20 ♗h1 and 20 ♔f1 – do no obvious harm yet can also be rejected because they make little or no sense.

Eventually a player goes beyond these and learns to recognize moves that are not only not-bad but possibly good. We've given them a name, "candidate moves." They are the finalists in the move selection process.

Here 20 e5, 20 ♖ab1 and 20 ♗f1, are among the natural candidates, and the grandmaster playing White decided to play a fourth, 20 ♖ad1.

That made it Black's turn. He had a choice of 31 legal replies. Again there were ridiculous blunders (20...♕xd4???) that can immediately be discarded. There were other moves that lacked a point, such as 20...♘h5. But trimming the remaining list of 20 or so moves requires a fair amount of understanding. Most players would limit their thinking to a few candidates such as 20...♖b8, 20...♖c7 and 20...h6. Black settled for 20...♗f8, which clears some of the traffic congestion on his second rank.

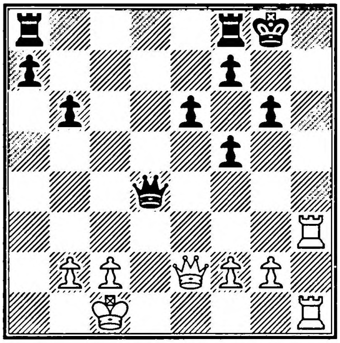
Leko-Svidler
Wijk aan Zee 2005



White to play

The situation is the same in livelier positions. In this example of grandmasters playing a Sicilian Defense, White has 43 legal possibilities. After he played 20 ♘a5, Black had 33 possible replies and chose a natural one, 20...♖fc8. Yet because of shortcuts, it is rare that a human gives serious thought to more than three or four candidates at any turn. Masters usually consider fewer, not more candidates, than amateurs. The stronger the player, the better he is at avoiding calculation – and the more efficiently he thinks.

Kasparov-Anand
Reggio Emilia 1990-91



White to play

1 ♖h4

White had planned on attacking along the h-file to make up for his deficit of two pawns, e.g. 1...♕f6 2 ♕e3! ♖fd8 3 ♕h3 and ♖h8+.

1 ... f4!

"I simply played this instantly," Black wrote. "I did not calculate anything."

By calculate he meant looking several moves ahead. Here he just saw far enough to know that he should stop ♕e3 or ♕d2.

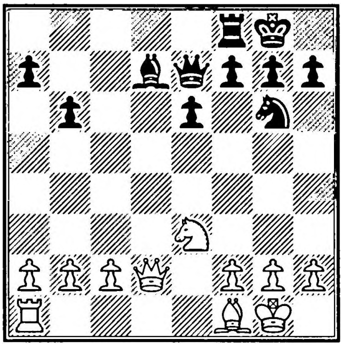
This is an extreme shortcut but it produced the best move. Even against the best reply Black would have kept his edge. (White responded 2 ♕f3? ♖ac8 3 ♖xf4 ♕c5 and Black remained a safe pawn ahead and won.)

It is rare that you *have* to look further than three moves into the future before deciding on a candidate. When Mikhail Botvinnik evaluated his chief rivals, he wrote, "Reshevsky's strength is calculation. He calculates two or three moves but sees a lot." Even Garry Kasparov, who relies much more on calculation than Sammy Reshevsky did, said he keeps his analysis to a minimum in most positions. "Normally I would calculate three to five moves. You don't need more," he said.

HOW WE GROW

As a player improves, his move selection skills develop in a haphazard manner. Let's consider how players of different strengths decide which move to play:

Post-Beginners – These are player rated below 1000 (if they have a rating at all). They have advanced well beyond learning how the pieces move and are beginning to develop a rudimentary preference for some kinds of moves.



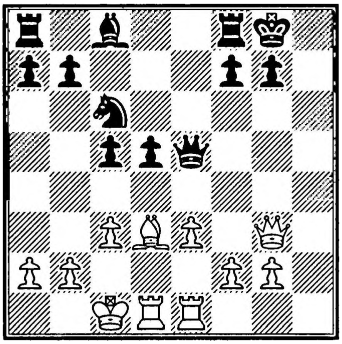
White to play

One post-beginner may play 1 ♗a6 because he likes "long" moves. Another will prefer 1 ♘c4 or 1 ♘g4 because he thinks knight hops are harder for an opponent to deal with. A third will like pawn moves and try to build elaborate ziggurats by pushing the queenside pawns to c4, b5 and a4.

We smile at their naivete. But the post-beginners have already made a giant stride – perhaps the biggest they will make in their career even if they become grandmasters: They've developed some criteria for cutting down the possibilities – the 39 legal moves for White here – to the small number of moves that they trust.

Post-beginners trust their criteria *too* much. Anyone who has seen a tournament room filled with very young juniors will be impressed by their quickness in finding a move they like. You can tell by the hands. No sooner has one player's hand deposited a piece on a square than another hand darts from the other side of the board to make the reply.

If the post-beginner analyses the consequences of his candidates at all, he relies on unrealistic expectations.



White to play

White is a piece down. His only realistic chance of avoiding defeat is to attack the king. He should avoid a trade of queens with, say, 1 ♕h4. But a player very new to the game may be influenced by "the odds."

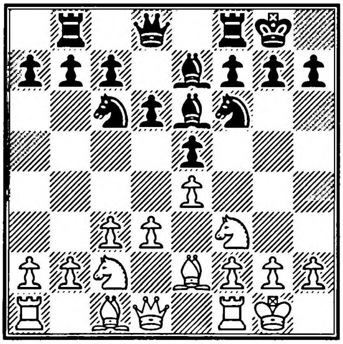
1 ♕xe5??

Black has 27 legal replies yet all but one of them, 1...♘xe5, is a blunder. In other games good decisions can be based on statistical probability. ("The odds of throwing a five or less on my next role are better than 2-to-1. I'll take that chance." Or "There's only a 36 percent probability that the spades will divide 3-3 so I'll have to try the finesse.")

But the improving chessplayer soon learns that betting on a 26-to-1 shot by playing 1 ♕xe5 is awful. That's a mistake that players in the next class would not make.

Novices – Many if not most of the victories of the post-beginner occur when he captures pieces his opponents have simply placed en prise. By the time he improves enough to reach the next stage, that of the novice, he's learned he can't beat stronger players just by exploiting blunders. Instead, he discovers how to make and carry out a threat.

The novice is also more open-minded in recognizing candidates. He knows that the best move in the position may not involve his favorite piece or a favorite square. But he is still focused on the possibilities of *his own* pieces.



White to play

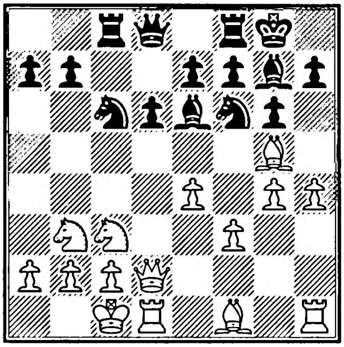
1 d4

A post-beginner sitting in Black's chair would likely overlook his opponent's possibilities, such as the threat of the pawn fork (2 d5). The novice might see the fork but not the second threat (1...♗d7 2 d5 ♘a5 3 b4!). Instead, he spends a lot of time focused on his own candidates, such as 1...♘xe4. And he rarely considers the consequences of his moves.

Improving Amateurs – Players in the next level avoid the mistakes of their past. They rarely put pieces en prise and they recognize most enemy threats. They can recognize a candidate as being "obvious." They look for a second candidate, even if the first one seems to be good.

But the most important attribute of the improving amateur is that he has advanced to the second and third stages of move selection. He doesn't just pick candidates. He tries to analyze and evaluate the consequences of a candidate: "If I go there, what happens if he goes there?" He can calculate simple forcing sequences, such as 1 ♖e8+ ♖xe8 2 ♖xe8 mate for a last-rank mating combination. He can also evaluate simple positions with some accuracy.

However, his analysis is badly flawed in non-forcing situations. He guesses at the move his opponent will play, rather than find the move that would be most damaging to him.



Black to play

Black says to himself, "If I play ...♗xb3, he has to retake or he'll be a knight down. He'll recapture towards the center, axb3. Then I reply ...♘b4 and I have a strong attack with ...♕a5 coming up."

Black's tactical vision can't be faulted. After 1...♗xb3 2 axb3 ♘b4 he would have a serious initiative, e.g. 3 ♔b1 ♕a5 followed by ...♖xc3 and ...♕a2+.

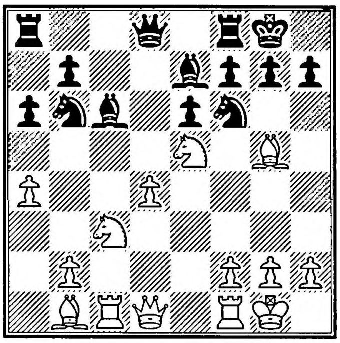
The problem is not visualization but sloppy optimism. Black hasn't reached the level of sophistication to say "If I play ...♗xb3, I stand well if he recaptures with the a-pawn. But maybe that's not the best reply. What happens on cxb3? Hmm, if I play ...♘b4 then he just moves his king to b1 and he's quite safe. So maybe ...♗xb3 isn't my best move."

Experienced Tournament Players – These players have mastered many of the basic techniques of move selection. They can spot a candidate that violates general principles but just seems right for the position (like cxb3!). They're acquiring some intuition.

They've also developed shortcuts in the second stage of the process. They know that in some positions they can safely halt their calculation after looking only two moves into the future, whereas in other positions they may have to look much further to be reasonably sure of a candidate's soundness.

And in the third stage, their ability to evaluate goes far beyond that of lower-rated players. They will rarely conclude that a position is plus-over-minus when it is really equal.

Van Wely-Bruzon
Wijk aan Zee 2005



Black to play

White has just played 1 ♘e5 and seems to be threatening 2 ♘xc6.

1 ... ♘fd7!?

Black knows it wasn't a threat. Eliminating the e5-knight is more important than granting White the two-bishop advantage and rupturing Black's queenside pawns. He stood well after 2 ♕d3 g6 3 ♘xc6 bxc6 4 ♗h6 ♖e8 5 ♘e4 ♘d5 6 ♗d2 ♕b6.

Masters – The upper two percent of tournament players employ so many shortcuts that they can play good moves almost instantly, as they do in simultaneous exhibitions. Masters rely much more than other players on an intuitive sense of what the right move looks like and they're able to recognize the important elements in a position – when doubling a pawn matters and when it doesn't, for example.

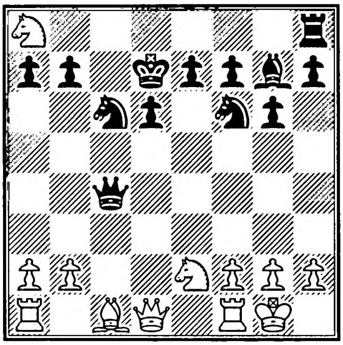
Moreover, masters are able to detect when they need to calculate and when they can and should avoid it. They trust their level of expectation to tell them when they should look for a superior, second candidate or even a third. And they know how to balance subjective factors, such as the degree of risk in deciding what move to make.

MOVE SELECTION MYTHOLOGY

Yet much of the advice given by masters is dubious at best. They pass on platitudes such as "Never play a move unless you know what your next move is" and "There is a best move in any position. Find it!" They claim that you should consider every reasonable candidate, analyze each of them once and only once and make a final decision about which move to play only after you are absolutely certain of its consequences.

But in their own games masters often ignore all of this advice.

An extraordinarily candid look at the way good moves are really made came from Kasparov's 1997 game against Internet opponents. He explained his thought processes in *Kasparov Against the World*. The game began with 1 e4 c5 2 ♘f3 d6 3 ♗b5+ ♗d7 4 ♗xd7+ ♕xd7 5 c4 ♘c6 6 ♘c3 g6 7 0-0 ♘f6 8 d4 cxd4 9 ♘xd4 ♗g7 10 ♘de2 ♕e6 11 ♘d5 ♕xe4 12 ♘c7+ ♔d7 13 ♘xa8 ♕xc4:



White to play

Kasparov planned to play 14 ♘c3 when he visualized this position before choosing his 11th move. He felt the same way when he selected his 12th. But when this position actually occurred he rejected 14 ♘c3 without analyzing it. He made his decision because of a very general consideration: There are no targets for him to attack after 14 ♘c3 and, despite his temporary material advantage, the most he could hope for was to reach a chancy endgame.

Instead he chose **14 ♘b6+!**, to create a target at b6. He didn't look one move further. "I have to admit, I didn't know what to do next," Kasparov said.

After Black replied **14...axb6** he first examined 15 ♘c3. This is typical. A candidate that was considered on the previous turn may go the top of your list of candidates on the following move. But he found a problem. Black seems to get too much counterplay after 15 ♘c3 b5 and ...b4.

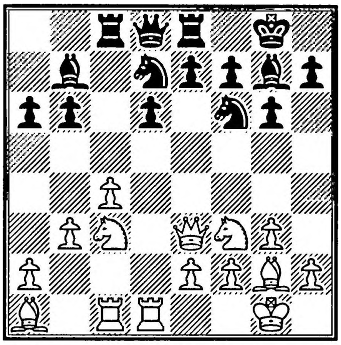
So he focused on 15 a4, to stop ...b5 and prepare to play ♘c3 when it was safer. But 15 a4 left Black with too many moves that might turn out to be good, he decided. Kasparov turned his attention again to 15 ♘c3. Going back like that to a candidate you've already rejected was considered a sin by some Soviet-era trainers. But their players continued to do it anyway.

Kasparov ended up playing **15 ♘c3** because of a fundamental change in his thinking. He realized his position wasn't as good as he thought when he played 13 ♘xa8 and that he would probably not emerge with an edge in the middlegame. So the knight move, which he had dismissed because Black would stand well after 15...b5, looked like the best once he realized Black deserves to stand well.

White's analysis led him to another fundamental conclusion that would influence him for several moves. A trade of queens would probably help Black, he concluded. This valuable information simplifies the task of analyzing future candidates. It's another shortcut that enables White to avoid calculation.

Scrolling ahead, after 15 ♘c3: The World players, voting on their moves, chose **15...♖a8** instead of 15...b5. Kasparov was relieved at first but soon appreciated that 15...♖a8 was also strong. He recalled one of his previous games.

Karpov-Kasparov
World Championship match,
23rd game 1986

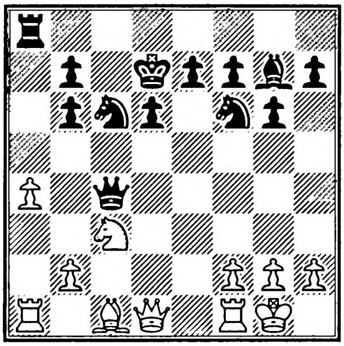


Black to play

Black's position seems somewhat passive. Yet he obtained good counterplay with the surprising maneuver 1...♖c5! 2 a4 ♕a8 3 ♘e1 ♖f5!. The rook was well placed after 4 ♗xb7 ♕xb7 5 f3 h5 to support ...d5 or ...b5 and Black eventually drew.

Although this seemed a world away from the position in the Internet game, Kasparov recognized a similar pattern: If

Black continued ...♖a5-f5 he would likely stand well, he concluded. Without sweating over the alternatives he chose **16 a4** in order to meet 16...♖a5 with 17 ♘b5 and close the door on the rook.



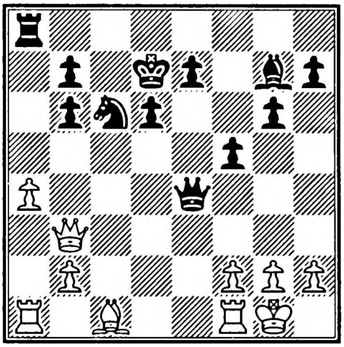
Black responded with **16...♘e4**, threatening to capture on c3. Here Kasparov adopted quite a different method of thought from his previous moves. Instead of going with his gut feeling (14 ♘b6+) or shifting his attention between two candidates (before choosing 15 ♘c3) he employed a process of elimination.

He rejected the most aggressive alternative, 17 ♘d5, because he saw 17...♗d4 would defend b6, threaten ...♕xd5 and take aim at f2 for possible tactics later on.

Since he had already concluded that endgames would likely be bad for him, he rejected 17 ♕d5 ♕xd5 18 ♘xd5 once he saw that 18...♖a6 would safely defend the b6-pawn. He apparently disposed of 17 ♘e2 on the general principle that retreats are suspect in a sharp position like this.

In the end he chose **17 ♘xe4**. He didn't come to any conclusion about how good his position was after it. The move simply had to be played.

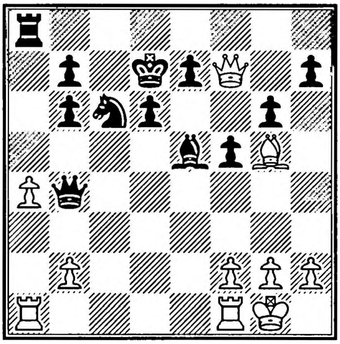
There followed **17...♕xe4 18 ♕b3**. White attacks f7 and defends b2 so that he can move his bishop. Black replied **18...f5**.



A member of Kasparov's team wanted to select 19 ♕xb6 "but I didn't even consider it" because it "went against my chess principles" to grab material while his queenside pieces were undeveloped. He decided **19 ♗g5**, with the idea of ♖fe1 followed by ♕e6+, "had to be the right move." He tested that by analyzing Black's aggressive replies (19...♕d4, 19...♘d4 and 19...♕b4) and liked what he saw.

Black chose **19...♕b4** and White jumped at the opportunity to play **20 ♕f7**. Again he was influenced by his earlier conclusion that a trade of queens was bad. What clinched the choice was that 20 ♕f7 threatens a piece and presents Black with a choice of ways to take on b2. Weaker players often prefer to force their opponents into making a specific move. But Kasparov knew that giving Black choices is the only way to increase the likelihood of a mistake.

The Black consensus recognized that taking either way on b2 was risky because of 21 ♖ab1. They voted to play **20...♗e5**.

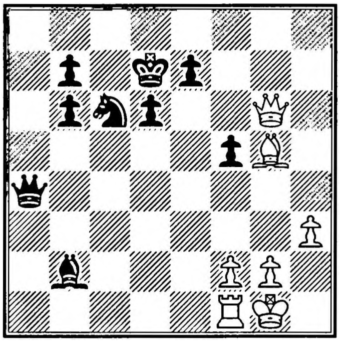


Kasparov rejected 21 ♕xh7 when he saw 21...♖h8, which would drive the queen away and allow Black to play ...♗xh2+. That suggested he could prepare ♕xh7 by playing 21 h3 first.

But Kasparov's intuition indicated the position called for something more lively. He turned his attention to the most forcing move, 21 f4. That's so sharp it demanded the precise analysis that White would avoid if he chose 21 h3. What clinched his decision was the realization that 21 f4 is a bridge-burner: It commits White so much that he would likely either win the game quickly or lose in the long run. Once Kasparov found a line in which Black does well after 21 f4, he rejected it.

He spent more time on 21 ♖ac1, which also makes sense because it develops a rook and creates the possibility of a sack of ♖xc6 followed by ♕xe7(+). Moves that do more than one thing are always attractive. But he eventually went back to **21 h3** and chose it after little further analysis. He decided it was a good move after all because it created a way for White to win the game – by playing ♕xh7 next move and ultimately promoting a kingside pawn.

In fact, that's the plan that eventually won after **21...♖xa4 22 ♖xa4 ♕xa4 23 ♕xh7 ♗xb2 24 ♕xg6**.

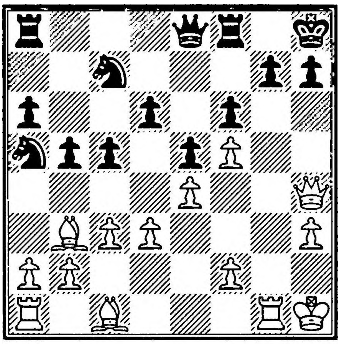


The secret of White's success was not really a secret. He followed specific techniques of move selection that anyone can learn. They begin with knowing what moves to consider – by following the cues for good candidates.

2: Candidate Cues

As soon as his opponent's hand releases the piece he's moving, the experienced player will find himself attracted to a particular reply. He will often talk about a candidate as being the "obvious" one, the "natural" one, the "standard" move in such positions, or, as the Russians put it, the "programmed" move.

Dembo-Guenther
Bundesliga 2003



White to play

1 ♗d1

This move was given a double exclamation point in the *Chess Informant*. But it's the kind of move many masters would play almost instantly. To them it would be "obvious."

Why? There are several reasons. First, White wants to avoid ...♘xb3, a beneficial trade for Black. In addition, the bishop can now go to h5 where it would attack the queen. It might take part in a mating attack there. In fact, 2 ♗h5 is a winning threat (2...♕-moves allows 3 ♗g6 and if, 3...h6, then 4 ♗xh6! leads to mate).

In fact, 1 ♗d1 was a killer. The game went 1...♖g8 2 ♗h5 ♕f8, so Black's queen can foil the mating sacrifice on h6 after 3 ♗g6 h6. But there was no good answer to 3 ♖g4!, which threatens 4 ♗f7! followed by 5 ♕xh7+! ♔xh7 6 ♖h4+ and mates.

No one short of a computer sees all that in the instant after they first examine the diagram. But experienced players learn to recognize a move that is so evidently good that to them it really is “obvious.” What helps them find such a candidate are basic cues that enable them to whittle through the three dozen or so legal options. The chief cues are:

(a) Tactics

(b) General principles

(c) Positional desirability

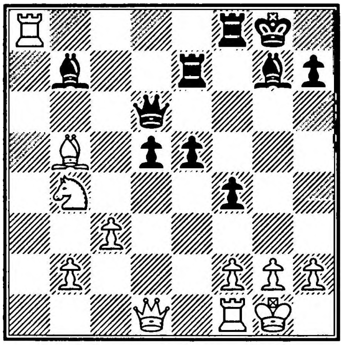
(d) Consistency

(e) Problem pieces

Let’s start with tactics. The first candidates that come to mind are those that answer the simplest of questions: What captures can you make? Is there a check you can give? Is there a winning pin or fork?

“The foundation of chess is the process of ‘vision,’” wrote the Soviet era grandmaster Grigory Levenfish. He defined vision as the ability to spot “where everything under attack, yours and your opponent’s, is located.” Then comes “double attacks, and finally the harmonious interaction of pieces, yours and enemy ones, that lead to combinations.”

Anand-Leko
Wijk aan Zee 2005



White to play

Black has just played his bishop from c8 to b7. White immediately recognizes the simplest tactics: His rook is attacked and he can capture Black’s rook with 1 ♖xf8+.

He also sees that 1...♔xf8 would enable him to attack the h-pawn with 2 ♕h5. And on 1...♗xf8 there may be something to 2 ♕g4+.

Every strong player would see this fairly quickly, regardless of whether they are “combinational” or “positional” or “strategic” or whatever stereotype terms are used. They all have the vision.

1 ♖a7

White also noticed how this move would create at least three new tactical possibilities – 2 ♗a6, 2 ♗c6 and the sacrifice 2 ♖xb7 ♖xb7 3 ♗c6 followed by ♗xb7 or ♗xd5+. There are potential pins, skewers and forks all over the place, e.g. 2 ♗c6 ♗xc6 3 ♖xe7 ♕xe7 4 ♘xc6 ♕d6 and now 5 ♕xd5+! ♕xd5 6 ♘e7+ and 7 ♘xd5.

1 ... d4!

Black's vision is at least the equal of White's. His move eliminates some of White's ideas and creates tactics of his own.

2 ♗a6?

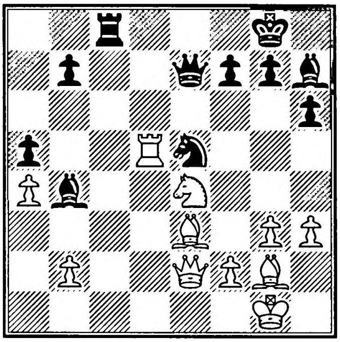
The first things that you should notice about 1...d4 is that the d-pawn is now solidly protected and the diagonal leading to Black's king is open (so ♕b3 is check). White's reply tries to exploit the way Black's pieces protect one another (2...♗xa6 3 ♖xa6). But he misses another major change created by 1...d4 – the b7-g2 diagonal is opened.

2 ... ♗xg2!

White loses after 3 ♔xg2 ♖xa7 or 3 ♖xe7 ♕g6!, which sets up a deadly discovered check. He tried 3 ♗c4+ ♔h8 4 ♖a6 ♕c5 5 ♔xg2 instead but lost after 5...f3+ 6 ♔h1 ♕xc4.

As soon as it's your turn to move, you look for forcing moves – that is, moves that threaten enemy pieces. Even in quiet positions threats provide the tactical energy that advances your agenda.

Bareev-I. Sokolov
Wijk aan Zee 2004



Black to play

Everything seems well protected and that wouldn't change after an innocuous move such as 1...♘c6 or 1...♗g6.

1 ... ♖d8?

But this raises the tactical level sharply. Black threatens 2...♖xd5 but he also stretches the mutual protection of his pieces.

2 ♗c5!

GM Larry Christiansen says that he begins move selection by conducting a "cheapo-scan," looking for all the one-move and two-moves tactics in the position before him. Here the tactical shots would begin with 2 ♖xd8+ and 2 ♖xe5. A quick look reveals that neither accomplishes much. But White can win a pawn by stretching Black's defenses to the breaking point.

2 ... ♕c7

Double attacks are the most powerful tactics in chess. A double attack on the b-pawn and knight would arise after 2...♗xc5 3 ♖xd8+ ♕xd8 4 ♘xc5, e.g. 4...b6 5 ♕xe5 bxc5 6 ♕xc5 or 4...♕c7 5 ♘xb7.

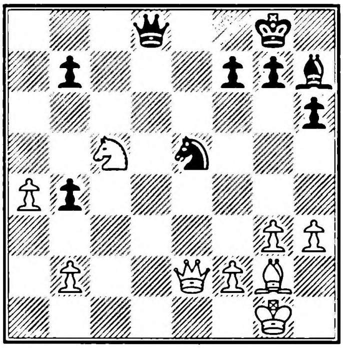
Note that 2 ♖xd8+ ♕xd8 3 ♗c5 would have led to the same thing after 3...♗xc5? 4 ♘xc5. The difference is that 3 ♗c5, unlike 2 ♗c5, doesn't threaten anything. Black could safely respond 3...♗xe4 or 3...♘d3.

3 ♖xd8+ ♕xd8

4 ♗xb4 axb4

5 ♘c5

White is also close to a win after 5 ♕b5 with another double attack, of e5 and b7.



5 ... ♕d4

The best try and, not surprising, a move that attacks something. Now 6 ♘xb7 b3! complicates matters (7 a5 ♗c2 and ...♕xb2).

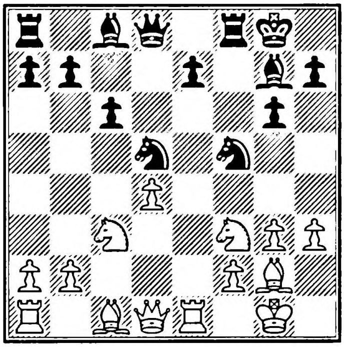
6 ♘b3!

Always look for the big threat. This attack on the queen ensures that White can win the b7-pawn and create an outside passed pawn in the best way. After a few more tactics, Black's position was hopeless – 6...♕d6 7 ♗xb7 ♗d3 8 ♕e3 ♗c4 9 ♘d4 ♕c7 10 ♗g2 ♗a6 and now 11 ♘c6! ♘xc6 12 ♕e8+ ♔h7 13 ♕xc6.

Note that all of White's moves from 2 ♗c5 to 6 ♘b3 were forcing. The cumulative effect of a series of such moves, even one-move threats, can be impressive. Take the next example.

Nothing much seems to be happening. White would like to get something going on the a2-g8 diagonal but 1 ♕b3 ♔h8 is unimpressive. He also has a potential target at e7 but it is protected three times.

Wojtkiewicz-Julia
Buenos Aires 2003



White to play

1 g4!

Yet White can create pressure against the e-pawn with simple moves that don't involve much calculation. First he drives off one of the defenders.

1 ... ♘d6

The knight is worse on h6, e.g. 1...♘h6 2 ♗g5 ♖f7?? 3 ♕d2 or 2...♖e8 3 ♘xd5 cxd5 4 ♕e2.

2 ♗g5!

More pressure (2...♘f6 3 ♕e2).

2 ... ♗f6

This defense of e7 would not have been possible after 1...♘h6.

3 ♗h6

By attacking the rook White gains time (3...♖e8 4 ♘xd5 cxd5 5 ♘e5 with advantage) for his next shot.

3 ... ♗g7

4 ♗xg7 ♔xg7

5 ♘xd5

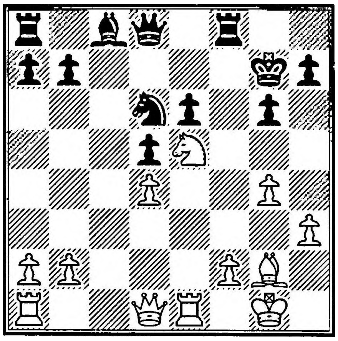
White sets up a second target at d5.

5 ... cxd5

6 ♘e5

Simple tactics. White creates the possibility of ♗xd5 and can meet 6...♗e6 with 7 ♘xg6 and 8 ♖xe6.

6 ... e6



7 ♕e2

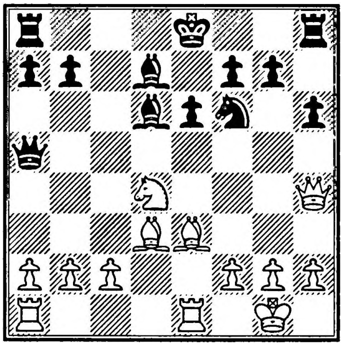
White's positional edge is obvious and it will grow after he takes control of the c-file with ♖ac1. Individually, none of White's moves were hard to find. He simply chose moves that made threats. The game ended soon after 7...♖e8 8 ♖ac1 ♗d7 9 ♖c3 ♗b5 10 ♕e3 ♖c8 11 ♖xc8 ♘xc8 12 b3 ♖e7 13 h4 ♗e8 14 ♕f4 ♘d6 15 ♖e3 ♖c7 16 ♘d3! and ♘c5.

Looking for a way to attack enemy pieces should come at the start of the hunt for candidates. This is because tactical vision carries with it a surprising law of diminishing returns: *The more you study the position, the less you will see tactically.*

One-move and two-move tricks often jump to your attention in the first several minutes you spend on a position. But if you don't see them during that time, it is unlikely you'll see them if you spend another 10 minutes on the position. For some reason we can't explain, the mind tends to block out relatively simple tactics that stare us in the face. This is how White, one of the world's premier tacticians, overlooked 2...♗xg2 on p.20 despite considerable study of the position.

Almost everyone can train themselves to look for threatening candidates and be able to find moves such as 1 g4, 2 ♗g5 and 3 ♗h6 in the last example. Some players develop this skill more quickly than others. Levenfish said tactical vision was a "gift of nature" that might take you two or three months to fully develop after learning how the pieces move – or it might take years. The gift helps explain how teenagers become grandmasters so quickly.

Lautier-Karpov
Biel 1997



Black to play

This seems like the right time to castle. However, 1...0-0? invites 2 ♗xh6 gxh6 3 ♕xf6, and 1...0-0-0 leaves Black with too many weaknesses after 2 ♘b3 ♕-moves 3 ♗xa7.

Moreover, if Black keeps his king at e8 it is vulnerable to tactics such as ♘f5 (so that ...exf5 would be met by ♗b6 with discovered check). After long thought, Black chose:

1 ... ♔f8

And White quickly found:

2 ♗f4!

Probably because he noticed a key point, bishop takes d6 will now be a check. Even after realizing that, he would have to evaluate the consequences of 2...♗xf4 3 ♕xf4. But he determined that a trade of bishops should favor him because he ends up in control of dark squares such as e5 and d6.

2 ... ♗xf4

After 2...♗e7 3 ♗e5 White's bishop becomes better placed and Black's becomes worse. The only reply that White had to worry about when he considered 2 ♗f4 was 2...e5. That turns out to favor him following 3 ♘b3.

3 ♕xf4 ♖c8

Since White holds the initiative, routine moves like 4 h3 or 4 c3 don't seem to meet the demands of the position. He might try 4 ♖e5 and then 4...♕c7 5 ♖ae1. His position then has clearly improved since the diagram. But White is reaching the point where he needs targets, not just "good chances."

4 ♘f3!

White chose this immediately because he felt his knight belonged on e5 where it would be able to hit targets at d7 and f7.

4 ... ♔e7

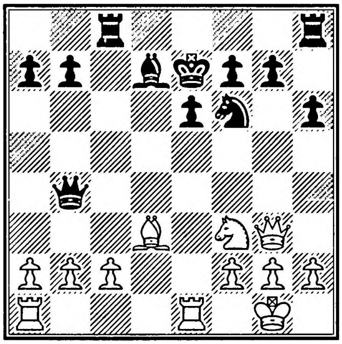
Black realizes that 5 ♕d6+ and 6 ♘e5 would have been dangerous.

5 ♕g3

The cues that suggest this move are: Attack what is undefended and try to exploit your opponent's last move.

5 ... ♕b4

Based on 6 ♕xg7?? ♖cg8, trapping the queen.



6 ♘e5

White threatens 7 ♕xg7 followed by a crushing ♕xf7+ or ♘g6+.

6 ... g5

7 c4!

A move based on the general principle of keeping Black's knight off its best square. Once White confirmed that the only dangerous reply, 7...♕xb2, would be good for him after 8 ♖ab1 and 9 ♖xb7, he felt 7 c4 must be right.

7 ... ♖hd8

8 ♕h3

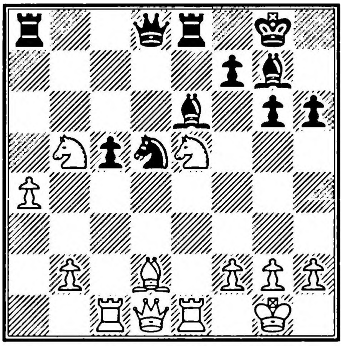
White continues to attack what Black's previous move left unprotected. After 8...h5 9 ♕e3! g4 10 a3 ♕xb2 11 ♖ab1 ♕xa3 12 ♘xf7! he was winning (12...♔xf7 13 ♗g6+ hangs the queen).

"ATTACK, ATTACK, ATTACK"

Of course, chess is more than just attacking enemy pieces. But the benefits of hitting at targets repeatedly are considerable: (a) You don't allow your opponent respite to make threats of his own, (b) you create the potential for a double attack and (c) you place a psychological burden on your opponent.

"Attack, attack, attack" may sound naive. But let's let Garry Kasparov speak: "The old masters used to say 'If you attack the opponent's pieces ten times in a row, he will blunder something on move 11.' Take my game with Tukmakov, Frunze 1981. The rule worked well."

Tukmakov-Kasparov
Soviet Championship 1981



Black to play

1 ... ♗f5!

Black opens up an attack on the e5-knight and prevents its retreat to d3.

2 ♘c6

White meets a threat with a threat. This is better than 2 ♘c4 ♖xe1+ 2 ♗xe1 ♘f4 and ...♘d3.

2 ... ♕d7!

The other appealing candidate, 2...♕b6, permits 3 ♘a5 since 3...♖xa5? 4 ♖xe8+ and 3...♗xb2? 4 ♘c4 lose.

3 ♖xc5

But here 3 ♘a5 allows 3...♗xb2.

3 ... ♖xe1+

This is a natural choice because it is both forcing and because one of White's pieces must be diverted to retake on e1.

4 ♕xe1

After 4 ♗xe1 ♖e8 Black threatens a strong 5...♘f4! (6 ♕xd7?? ♖xe1 mate).

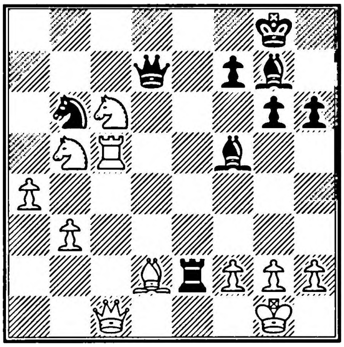
4 ... ♖e8

Black may have considered 4...♖xa4 to get one of his pawns back. But 5 ♖xd5 ♕xc6 (not 5...♕xd5?? 6 ♘e7+) 6 ♖d8+ is not as promising as the text. It pays to keep hitting enemy pieces.

5 ♕c1 ♘b6

This attacks a mere pawn but White's position would be collapsing if he ignores the threat, e.g. 6 h3? ♘xa4 or 6...♗xb2 7 ♕xb2 ♘xa4.

6 b3 ♖e2



Notice that White had choices at each of his last five moves but his candidates were limited to responses to threats. Here he must defend his attacked bishop. He correctly rejected 7 ♗e3? ♗b2 8 ♕f1 ♗d3! 9 ♕d1 ♗xb5! (10 ♕xd7 ♖e1 mate).

7 ♗a5

White is beginning to show the strain of making hard choices. Here, for example, 7 ♗c3! ♖c2 8 ♕e1 looks risky and untrustworthy. But later analysis showed it was the best defense.

7 ... ♗e4!

A new threat: ...♕g4.

8 ♘e5 ♕e7

White can't allow 9 ♘c4 ♕xc5 and doesn't like the looks of 9 ♘f3 ♗xf3. So...

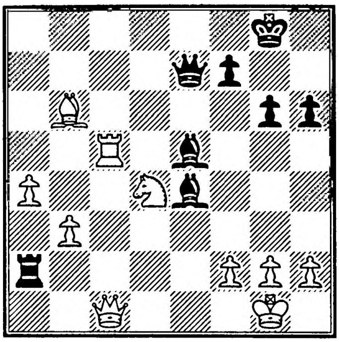
9 ♘d4?

After the game it was discovered that 9 ♕f1, another hard-to-trust move, was mandatory.

9 ... ♖a2

This revives the threat of 10...♗xe5 and creates a new one, 10...♕xc5 11 ♕xc5 ♖a1+ and mates.

10 ♗xb6 ♗xe5



11 ♕e3?

This is the "move 11" blunder Kasparov mentioned. White can still fight with 11 ♕e1 and then 11...♕d6 12 ♘e2! or 11...♕f6 12 ♘e2!. But only a computer or a Karpov easily finds moves like those.

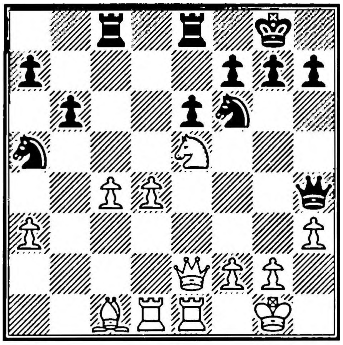
11 ... ♕xc5!

White resigns

It's mate on the first rank. This is an extreme example but notice how often Black's best move turned out to be fairly easy to find once he searched for moves that made threats.

Good cues can also inspire you to find highly unusual moves – "hidden" candidates. In the next diagram there was no obvious choice. The only move that makes a direct threat, 1 ♘f3, leaves White with no meaningful follow-up after 1...♕h5. Some computers even recommend 1 ♗d2.

Alekhine-Euwe
World Championship match,
tenth game 1937



White to play

Nevertheless tactics suggested a hidden candidate to White. He noticed that Black's queen had one safe escape square, h5.

1 g4!

The idea is 2 ♔g2! and 3 ♘f3, trapping the queen. To play 1 g4 White had to come up with an answer to 1...♕xh3 but once he noticed 2 ♖d3 ♕h4 3 ♔g2 and 4 ♖h1, he knew his move would be powerful.

1 ... ♘c6?

Better was 1...h6 2 ♔g2 ♘h7, which creates an escape route (but allows 3 d5!). The best practical try may have been the sacrifice 1...♕xh3 2 ♖d3 ♕h4 3 ♔g2 ♘xg4.

2 ♔g2!

Black must lose material in view of 3 ♘f3. He gave up a knight (2...♘xe5 3 dxe5 ♘h5 4 gxh5) but resigned 14 moves later.

Tactics not only inspire offensive ideas such as the queen trap begun by 1 g4 but also defensive candidates as well. At the end of Chapter One we saw how Kasparov, playing the World, began by considering the capture 21 ♕xh7. But he rejected it because of the skewering reply 21...♖h8!. White also considered a threat to capture a minor piece, 21 f4. But he eventually settled on a move, 21 h3!, that reduced his opponent's tactics.

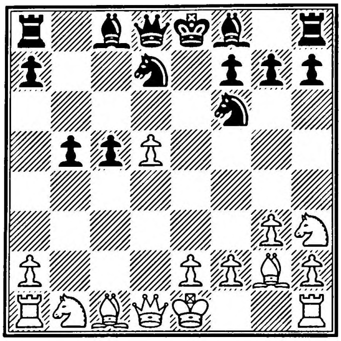
All in all, tactics inspire an extraordinary number of candidates. But there are other cues that make a move "obvious." They begin with good old reliable general principles.

GENERAL PRINCIPLES

Despite their reputations as calculating machines, grandmasters often justify their decisions by citing fundamental chess values – pawns should capture toward the center, pieces should protect one another, rooks belong on the seventh rank and so on.

You can often play a "general principle move" without much thought. Its value is grounded in centuries of conventional chess wisdom. Whether it also has a tactical point may not even occur to you.

Kasimdzhanov-Kasparov
Batumi 2001



Black to play

1 ... ♗d6

This is almost a knee-jerk move. There are several reasons why it should be played: Black develops the bishop on its most aggressive square. He prepares to castle. He stops the space-grabbing d5-d6.

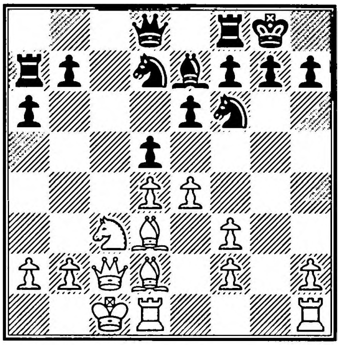
The only apparent tactic in the position is avoiding 1...♗e7?? 2 d6, which would leave the bishop and QR hanging.

2 0-0?? 0-0??

The bishop move was so natural that it didn't occur to either player that it threatened to end the game immediately with 2...♗e5!, winning a piece.

The degree to which grandmasters rely on general principles often astonishes other players. A non-master may give you a convoluted explanation, with sub-variation upon sub-variation, of why he rejected a candidate. But the GM may simply say, "I didn't want to double my pawns" or "My rook needed an open file." Such considerations can lead them to play moves that would never occur to novices.

Anand-Morozevich
Dortmund 2001



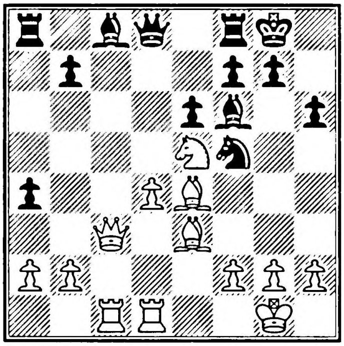
Black to play

White's last move, 1 e4, threatens 2 e5 and, after the knight moves, 3 ♗xh7+. Black cannot defend h7 with another piece and he didn't like 1...e5, the only way to stop 2 e5. So he was left with the choice of pushing one of the kingside pawns or sacrificing the h-pawn.

Black didn't give variations to explain why he rejected 1...h6. It was simply bad on general principles, he said, because g7 and h6 can now become targets. He did cite analysis of 1...g6 and then 2 ♖hg1, 2 e5 or 2 h4. None of the lines were convincing. In the end he rejected 1...g6 "because of general principles." (He chose the sacrifice, 1...♔h8!?, and obtained excellent chances after 2 e5 ♘h5 3 ♗xh7 b5! 4 ♔b1 ♖c7.)

In the endgame it often seems that virtually all of the moves are chosen because of tactics or general principles – such as "passed pawns must be pushed," "the king is a strong piece," "rooks belong behind passed pawns" and the like. In the middlegame and late opening, players rely on principles of an even more general nature. Often a master rejects a move simply because one of his pieces just wouldn't look right on its new square.

Topalov-Karpov
Linares 1995



Black to play

Black has a problem developing his queenside pieces: 1...♗d7 hangs the b-pawn to 2 ♗xb7 and because 1...♕a5 leads to a lifeless or inferior endgame (2 ♕xa5 ♖xa5 3 ♗xf5).

Black thought about 1...♖a5. He can bring the rook into play at b5 where it defends b7 and watches b2. But he rejected 1...♖a5 because the rook "hangs in the air," unprotected, after 2 ♘c4 ♖b5. Even though there is no immediate way for the rook to be exploited on b5, Karpov never liked to have his pieces unprotected.

He turned his attention to 1...♖a6, perhaps with ...♖b6 or ...♖d6 in mind to keep the rook on a protected square. He saw that White could reply 2 ♗xf5 exf5 3 d5 and f2-f4 and "the bishop is somewhat stupid on f6." He didn't cite specific variations. The bishop was just wrong on f6 in such a pawn structure, he felt.

In the end he played:

1 ... ♘xe3

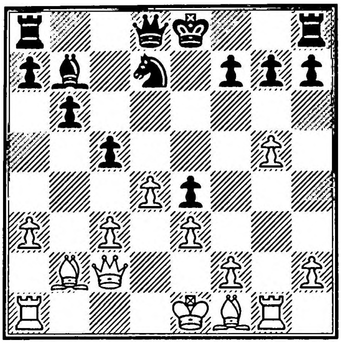
The knight actually seems to be a better piece than the bishop.

2 ♕xe3 ♕b6

But the exchange on e3 allows Black to occupy b6 safely (compared with 1...♕b6 2 ♗xf5 exf5 3 d5, attacking the queen). With ...♖d8/...♗d7 in mind Black stood well.

General principles are another of the many time-saving guides that players employ. They enable us to avoid lengthy analysis to verify that a candidate is positionally sound.

Akesson-S. Ivanov
Stockholm 1999/2000



Black to play

General principles tell Black it is time to castle and get his heavy pieces into play. But he rejected 1...0-0 because he didn't like the way the b2-bishop looked at his king after 2 c4. This didn't involve calculation.

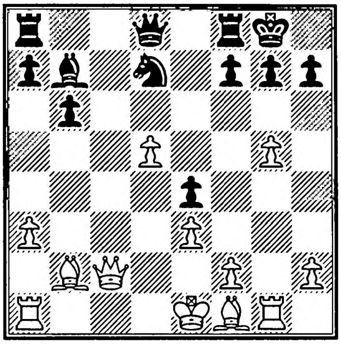
1 ... cxd4

And neither did this move, which was chosen on the basis of general principles. Black felt opening the c-file at least half way must favor him. Now on 2 exd4 ♕c7, he threatens the h-pawn and is able to exert pressure on both wings (3 ♖g3 0-0 4 c4 f5!? 5 gxf6 ♘xf6 with ideas such as ...♘d5-f4).

2 cxd4 0-0

White controls the open file but that is temporary (3...♖c8). Black's faith in general principles is justified by lines such as 3 ♗c4 b5! (4 ♗xb5?? ♕a5+) with the kind of active play he expected when he exchanged pawns.

3 d5!



This sacrifice is also based on general principles. White believes – but can't be sure – that the sacrifice is sound because Black has no easy way of defending g7 and will have problems on the d-file if he takes the pawn.

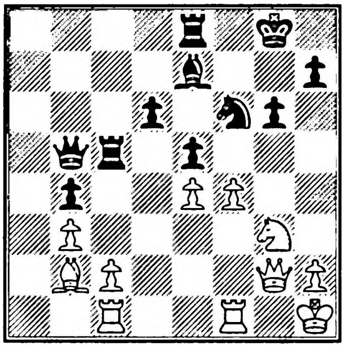
3 ... ♖e8!

Black felt the same way, not even analyzing 3...♗xd5 4 ♖d1. (Had he accepted the pawn he might have succumbed in a variation such as 4...♖c8 5 ♕a4 ♗c6 6 ♕d4 f6 7 gxf6 ♖xf6 7 ♗h3.)

The text allows him to meet 4 ♕c3 with 4...♘e5. The game continued 4 ♖d1 a6 5 ♕a4 b5 6 ♕d4 ♘e5 7 ♗e2 ♖c8 with mixed chances.

Novices are always told to learn general principles but soon discover that one principle can conflict with one another. Often you will see a grandmaster make a move that is solidly "principled." Yet his opponent never considered the move because it violated another principle.

Anand-Kasparov
Linares 1997



White to play

With 1 ♘f5 White has enough play to maintain the balance.

1 f5?!

In principle White would benefit from the opening of the kingside, and 2 fxg6 hxg6 3 ♘f5 is a major threat.

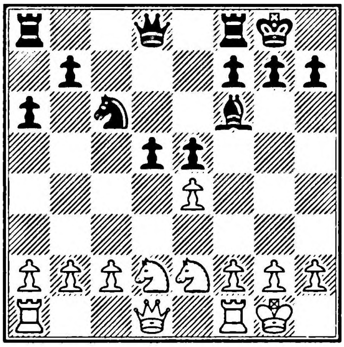
1 ... g5!

"The strongest and most surprising move of the game," said *Shakhmaty v Rossii.* It is strong because it keeps the kingside closed. It is surprising because on g5 the pawn looks vulnerable.

But when White looked at the new position he found he had no way of continuing his attack. Instead, he tried to protect his pawn weakness (2 ♖ce1 ♕c6 3 ♖e2), was soon on the defensive (3...♔f7! 4 ♗c1 ♖g8 4 ♗e3 ♖c3) and lost in short order.

Such surprises are bound to happen, even at the highest level, because players depend so much on principles that come into conflict with one another.

Almasi-Ivanchuk
Polanica Zdroj 2000



White to play

1 c4

General principles tell White that 1...d4 should favor him because Black's bishop becomes "bad." He expected 1...dxc4 because the other pawn capture would give White a queenside majority.

1 ... dxe4!

Black was guided by a different principle. "Capablanca taught that when you have a bishop against a knight you should strive for an asymmetrical pawn structure," he explained in *64*.

2 ♘xe4 ♗e7

3 c5 ♕c7

4 ♕b3 ♖ad8

White's mini-initiative is over and after 5 ♖fd1 g6 and ...f5 it became evident the kingside majority and bishop gave Black the edge.

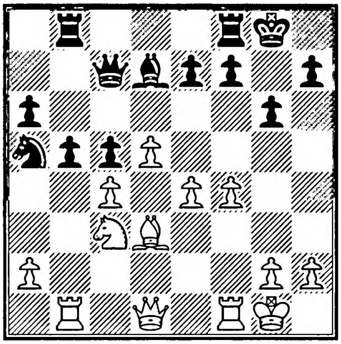
General principles are the second most important candidate cue. The chief drawbacks to relying on them are (a) the possible conflict of two principles and (b) their abstract nature. While tactics address the specifics of a position, general principles are, well, general. That's important because specifics beat generalities in nine out of chess games.

There is a third major cue, related to principles but focusing on strategic nuances.

POSITIONAL DESIRABILITY

In some positions a positionally desirable move will stand out. Often it changes the pawn structure or begins a piece maneuver. You should analyze it even if there seems to be a simple tactical refutation of it. "A master looks at every move he would *like* to make, *especially the impossible ones*," as Irving Chernev put it.

Gulko-Pierrot
Buenos Aires 2003



White to play

Black has just played ...b5 in a bid for counterplay (1 cxb5 c4! followed by ...axb5-b4). Some computers evaluate the position as even and recommend 1 ♕e2.

1 e5!

But this is a case when a candidate makes so much positional sense that it demands attention even if it seems "impossible." To play 1 e5 he had to come to two conclusions. First he had to realize that 1...bxc4 2 ♗c2 is quite nice because Black's knight is offside and he lacks the counterplay he sought from ...b5-b4. Second, White had to find a good answer to 1...♘xc4. But dominating the center with 1 e5 is so attractive that he persevered until he found one.

Black actually played 1...♕d8 and lost. Let's see what could have happened:

1 ... ♘xc4

2 d6! exd6

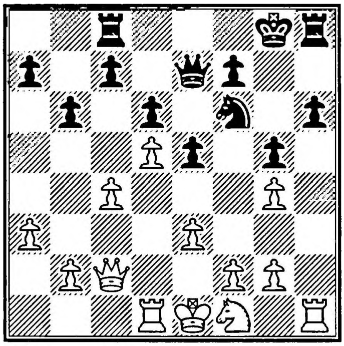
3 ♘d5!

If you look for forcing moves it is not really that hard to find the variations that justify 1 e5. Now 3...♕d8 4 ♗xc4 bxc4 5 ♖xb8 ♕xb8 6 ♘f6+ costs a rook, and 3...♕a7 4 ♗xc4 bxc4 5 ♖xb8 ♖xb8 6 exd6 is a positional edge.

Aron Nimzovich, a remarkably gifted calculator, sharply criticized players who automatically look for tactical lines. When there is a choice between roughly equal alternatives, "it is necessary" to pick the positionally desirable move, he wrote. Often such a move requires a sacrifice that can be made with little calculation.

Krasenkow-Macieja

Polish Championship 2003



Black to play

White has just played his knight to f1, hinting at a very strong plan. He wants to play ♘g3-f5 and solidify the outpost with f2-f3 and e3-e4.

1 ... ♖e8

Black couldn't take on g4 immediately because of the ♕f5 double attack. But now the threat of ...♘xg4 is "on." His move also allows Black to meet 2 f3 with 2...e4! followed by ...♕e5 and/or ...h5. That's not the case after:

2 ♘g3!

This must be played even if it can't be played, as the Russians say. The position cries out for ♘f5.

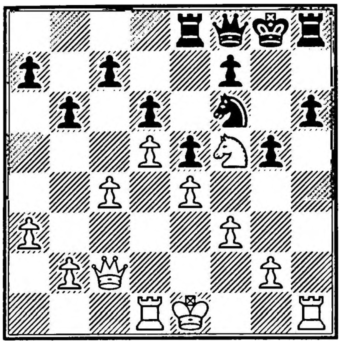
2 ... ♘xg4

3 ♘f5 ♕f8

Black needs to keep f6 free as an escape square for the knight (3...♕f6? 4 f3).

4 f3 ♘f6

5 e4



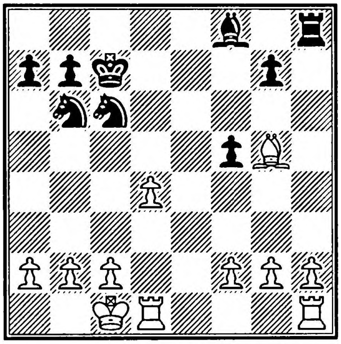
The difference between the two diagrams is striking. White's knight dominates all of Black's pieces. His advantage was certain after 5...a5 6 g4 ♖h7 7 ♖d2 ♔h8 8 ♖dh2 ♘g8 9 ♖h5 f6 10 ♖1h3 and 11 ♕h2. Seeing that far wasn't at all necessary. The key to White's realizing an advantage was his insistence on examining the positionally desirable knight maneuver.

Opportunities for moves like 2 ♘g3! (or 1 e5! in the previous example) won't arise very often. But when they do, you should give them extraordinary attention. The fourth major cue can be used much more often to find candidates.

CONSISTENCY

When you don't have a tactical idea to work with, or a candidate that conforms to general principles or some standard of positional value, you can still feel that a particular candidate is "right" because of how well it fits in with your previous moves.

Dolmatov-Sisniega
Graz 1978



White to play

1 h4!

Like so many good moves, this one is based on two ideas.

1 ... ♗d6

2 ♖he1?

This is the lesser of the two. Thanks to 1 h4 White doesn't have to worry about ...♖xh2 but:

2 ... ♔d7

Black stops the rook invasion at e6, leaving White without a good follow-up. A draw was agreed eventually after 3 c3 a6 4 ♔c2 ♘d5.

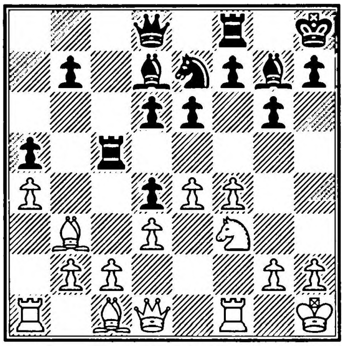
Much better was the consistent 2 h5! since it advances a basic winning plan by trying to create a passed kingside pawn (3 h6).

It sounds simple to be consistent. But it isn't. "After the game it's very easy to see everything clearly," Vishy Anand once said. "But during the game you have to play one move at a time." Since each move is a separate action, you may not realize, until the post-mortem, that your 25th move didn't fit in with your 24th or 26th.

During one of the New York Opens I emerged slightly the worse out of the opening as Black. My International Master opponent played what seemed like reasonable moves. Each had a specific and apparently valid reason. Yet afterwards when I looked at the scoresheet – just at his column of moves – I was stunned to realize he had played 27 ♘f3, 28 ♘e1, 29 ♘g2, 30 ♔h2, 31 ♕d1, 32 ♘e1, 33 ♘f3, 34 ♘g1, 35 ♘h3, 36 ♔g2 and then 37 Resigns.

One obvious benefit of having a plan, even a short-term one, is that it enables you to find the next few moves quickly. The drawback is that a bad plan can be suicidal. Both players selected plans in the next example but only one of them was sound.

Macieja-Lutz
Bundesliga 2003



Black to play

Black has slightly less operating room on the kingside so he turns his attention to the other wing. The c-pawn is a natural target because it lies on the only half-open file and cannot safely advance. But the White bishop at b3 does a terrific job of defending it.

1 ... b5?

2 axb5 ♗xb5

At least Black has a plan now. He wants to push the a-pawn to a4 and drive off the defending bishop.

But this gives White plan of his own and it is the superior one because the new target at a5 is more vulnerable. His next five moves could be played with virtually no calculation or evaluation.

3 ♗d2 ♘c6

4 ♖a3!

White will triple his heavy pieces on the a-file.

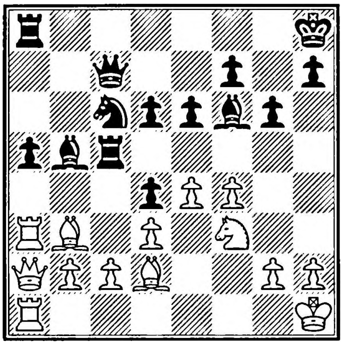
4 ... ♕c7

Black tries to defend a5 and passed up a chance to dissolve it with 5...a4!.

5 ♕a1! ♖a8

6 ♕a2 ♗f6

7 ♖a1

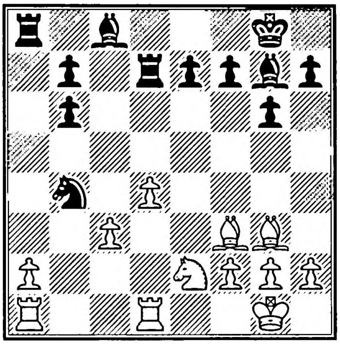


After 7...♗d8 Black's pieces would be tied to the defense of the a-pawn. White could switch to a new plan, such as 8 ♕b1 with the idea of attacking d4 after ♕g1 and ♗e1-f2.

Instead Black tried 7...♕b8 and for the first time since 1...b5 White had to calculate. But he liked what he saw and enjoyed a clear edge after 8 ♗xa5! ♖xa5 9 ♖xa5 ♘xa5 10 ♕xa5.

It's not every game that you'll receive a present of five or six "low-calculation" moves, like White's from 2 axb5 to 7 ♖a1. But you may find yourself in a position that suggests a short-term plan of two or three moves. A plan of any length tends to be better than just following general principles because it is more specific to the position. What makes a plan a plan is how it advances a particular goal.

Gelfand-Morozevich
Monaco 2002



Black to play

White has just recaptured on c3. Since 1...♘xa2 loses the knight after 2 ♖d2, the "principled" retreat is to d5. Knights belong on central outposts, we've been told over and over, and 1...♘d5 would watch both c3 and his own weakness at b6.

1 ... ♘c6!

But on d5 "the knight would do nothing," Black wrote, meaning it would advance no strategy. On c6 however it is part of a plan (...e5) that would expose White's center to pressure.

2 ♘f4

White threatens to occupy d5 and attack b6.

2 ... ♖a5

Black could cover d5 with 2...e6 but that would give up on his ...e5 plan.

3 ♘d3

White finds a way to forestall ...e5.

3 ... ♖a3

4 ♖dc1 ♘a5!

So Black begins a new plan – to attack various queenside targets with ...♘c4 followed by ...♖d8, ...♗f5 and ...♖c8 or ...♖da8. (This is better than 4...♗xd4 5 cxd4 ♖xd3 6 d5 which offers winning chances only to White.)

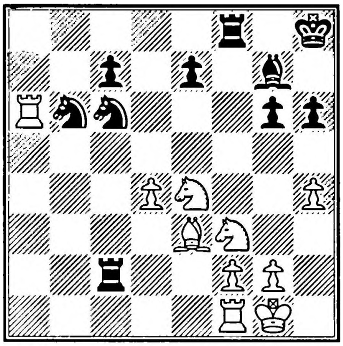
Black didn't complete this second plan but he nevertheless achieved a good position after 5 ♖ab1 ♘c4 6 ♖b4 ♘d2 and eventually won (after 7 ♖xb6? ♘xf3+ 8 gxf3 ♖xa2 9 ♘c5 ♖d5 10 ♘xb7 h5).

One more source of inspiration for finding candidates consists of dealing with problem pieces, both yours and your opponent's.

EXCHANGING ENEMY PIECES

When there is a significant change in the position, such as a trade of queens or an alteration in the pawn structure, one or more of your pieces is likely to find itself misplaced. The most attractive candidate may be a move that exchanges it off for a well-placed enemy piece.

Karpov-Svidler
Dos Hermanas 1999



White to play

There are no tactics for White to consider and no positionally desirable move suggests itself. General principles may tell him to bring his under-used rook into play. It would look nice to double rooks on the a-file but what's the follow-up? A better idea seems to be 1 ♖b1. But what then? Has he anything better than 2 ♖b5 and 3 ♖c5 ?

1 ♖aa1!

If the best that White can achieve with the f1-rook is to swap it off for the one at c2, this and 2 ♖fc1 is the most accurate.

1 ... ♘b4

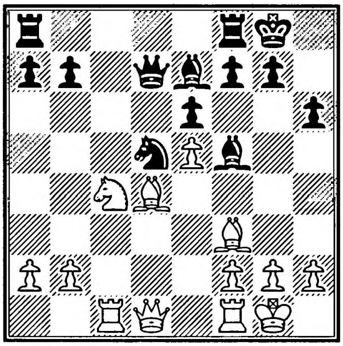
2 ♖fc1! ♖xc1+

3 ♖xc1

It won't be detectable for several moves but White has significantly improved his chances. He won after 23 more moves, beginning with 3...♘4d5 4 ♘c5 ♖f6 5 ♗d2 ♖d6 6 ♘b7 ♖f6 7 ♘e5 ♔h7 8 g3 ♖f8 9 ♘c5 ♖a8 10 ♖c2 ♖d8 11 ♔g2 ♗xe5 12 dxe5 ♘d7 13 ♘xd7 ♖xd7 14 ♖c6 and the advance of the king to e4.

Note the psychological barrier that White had to breach. To rid himself of Black's best piece, the rook at c2, he had to retreat one of his best pieces, the rook at a6. It's the enemy piece that matters most in such trades.

Bologan-Erenburg
Silivri 2003



White to play

White should be pleased with the outcome of the opening. He could begin the middlegame with 1 ♘d6, since 1...♗xd6 2 exd6 and ♗e5 (2...♕xd6? 3 ♗c5) is promising.

1 ♘e3!

This is simpler. Black's knight is the key to his defenses and after 1...♘xe3 2 ♗xe3 he can't protect both his queen and the vulnerable queenside (2...♕b5 3 ♖c7 ♗g5 4 ♖xb7).

1 ... ♗g5

This stops 2 ♘xd5. An "obvious" reply is 2 ♖c5, unpinning and adding new pressure to d5. But 2...b6 is a safe defense.

2 ♕b3

Now 2...♖fd8 invites an indirect pin, 3 ♖cd1. Black has to give way.

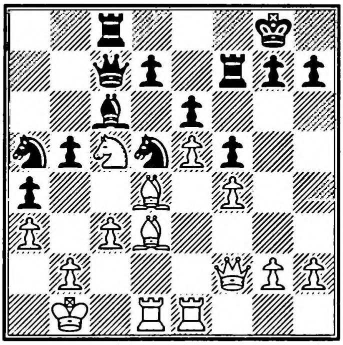
2 ... ♗xe3

3 fxe3!

White's positional edge will be evident after e3-e4 drives Black's surviving minor pieces out of play (3...♗g6 4 e4 ♘e7 5 ♗c5 ♖fc8 6 ♖cd1 ♕e8 7 ♗d6 and White won).

Trades rise towards the top of a player's priorities when there are few or no open lines. In the next example, neither side can do much with the diagonals and files. It would be positional folly for Black to try to open the position with ...g5 or ...d6, and it would be risky for White to try for g2-g4 or c3-c4. That makes it appropriate for both players to maneuver and try to trade off the most annoying enemy piece.

Iordachescu-Goloshchapov
Budva 2003



Black to play

1 ... ♘b7?

A better way of trying to eliminate the powerful c5 knight was 1...♘b3!.

2 ♘a6!

White can't avoid swapping this piece but prefers to trade it for Black's other knight, which is much better placed than the one at b7.

2 ... ♕d8

3 ♘b4

White gets the added benefit of opening the c-file for ♖c1 after ...♘xb4/cxb4. This wouldn't have mattered much after 1...♘b3 because c1 would be attacked by the knight.

3 ... ♘xb4

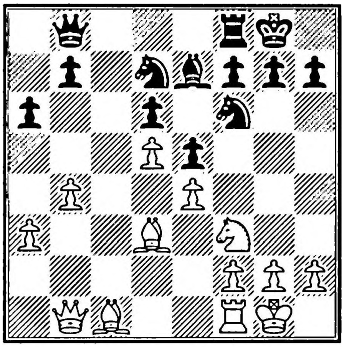
4 cxb4

White's edge is growing and even after a bit of sloppiness – 4...♕e8 5 ♖c1 (5 ♕e2!) ♗e4! 6 ♗xe4 ♖xc1+ 7 ♖xc1 fxe4 8 g3 d5 9 ♕c2! – he was closing in on a win.

WORST PLACED PIECE

When you can't trade off your worst piece, you may be able to make substantial progress by repositioning it on a better square. In semi-closed positions, players are often eager to seize an open file for a rook. But improving the plight of a minor piece frequently takes precedence.

Korchnoi-Akopian
Enghien-les-Bains 2003



Black to play

White's spatial advantage is real but it won't matter much if Black can get his bishop and d7-knight to good squares.

1 ... ♖c8

General principles suggest controlling the only open file. But 1...♖c8 looks better than it is because Black cannot penetrate with heavy pieces. For example, if he plays ...♖c3, White can kick the rook back with ♗b2. Better was 1...♗d8! and ...♗b6 with no problems for Black.

2 a4 ♖c7?

Black makes a more serious misjudgment. He doesn't appreciate how badly his cramped minor pieces will hurt him. With 2...a5! he would win control of c5 for the d7-knight and equalize.

3 ♗e3 ♕c8

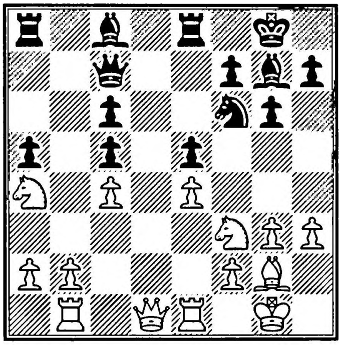
4 a5!

This rules out ...♗d8-b6 as well as ...a5. Black's heavy pieces look impressive but can be traded off by ♖c1. Black's minor pieces are his real problem and this became clearer after 4...♘f8 5 ♖c1 ♗d8 6 ♖xc7.

If Black recaptures with the queen, White can try 7 ♕b2 followed by ♘d2-c4 and b4-b5 as in the game, which went 6...♗xc7 7 ♕c2 ♕d8 8 h3 ♘8d7 9 ♘d2 h6 10 ♘c4 ♕b8 11 ♕b1 ♗d8 12 b5 axb5 13 ♕xb5 with a clear edge.

Since Morphy's day, completing your development has been cited as one of the most basic of general principles. An undeveloped piece is usually a badly-placed piece. But not always. We know from the experience of modern openings, including the Ruy Lopez and French, Sicilian and King's Indian Defenses that a piece that hasn't moved may be on its best square. In the following example, Black's two developed pieces are misplaced, yet the bishop at c8 should be left where it is.

Portisch-Fischer
Sousse 1967



Black to play

White's last move, ♘a4, underlines Black's problem. The c5-pawn is the most vulnerable target on the board. It can be attacked by White's other knight and his queen.

1 ... ♗f8

Black can defend c5 with 1...♘d7 but he has other plans for the knight.

2 ♕b3 ♘h5!

The knight is headed to e6, where it not only defends c5 but threatens to land on d4. Note that 1...♘d7, with the idea of ...♘f8-e6, would have required Black to occupy the f8 square that he needs for his bishop.

3 ♕e3 ♕a7

4 h4 ♘g7

And Black's crisis was over – even after White traded off his worst piece (5 ♔h2! f6 6 ♗h3 ♗xh3 7 ♔xh3 ♘e6).

These cues – tactics, general principles, positional desirability, consistency and solving piece problems – can provide you with most of the candidates you need to make good move choices. With the help of additional cues discussed in the next chapter, they should furnish you with more than one candidate. That's important because many players suffer from considering too few candidates.

Does this sound like you? You can test yourself. When you finish a tournament game and go over it with your opponent to find improvements on your play, see how many of the better moves were candidates you never considered. If the percentage is high, it means you are making decisions on the basis of too few candidates.

The remedy is to get into the habit of taking one extra step before selecting a move. Try to find at least one other candidate that you hadn't considered. This may not result in a better move each time – or even every fifth time. But in the long run it will improve your candidate spotting skills and improve your thinking technique.

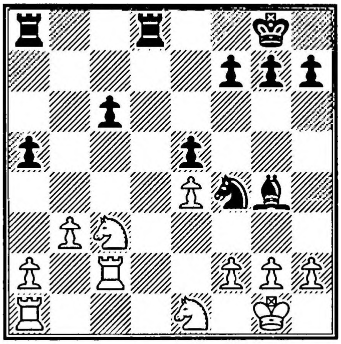
3: Move Triggers

You bring a great deal of knowledge to the board each time you sit down. But once the game begins you acquire new, more specific information and the most important usually comes from your opponent's last move.

That move often acts like a trigger, provoking a specific reply. In the example that began the last chapter, there were several reasons why 1 ♗d1 was good. But the main reason White's eyes focussed on moving the bishop was that Black had just played ...♘a5.

The experienced player has gotten into the habit of trying to figure out his opponent's last move. Does it have a specific purpose – such as ...♘xb3 in that case – or a general one? Does it protect something? Is it part of plan – and if so, how long will it take to complete? The answers help determine your best reply.

Zhang Zhong-Gulko
Shanghai 2002



Black to play

White seems to have somewhat better chances because of the slight weakness of Black's queenside pawns.

1 ... ♖d6

But this move forces White to reconsider. He recognizes that Black's move prepares 2...♖ad8 and 3...♖d2. Doubled rooks on the only open file – and one of them on the seventh rank – should give Black the upper hand, according to general principles.

But as White considered the rook problem further, an idea "struck like a bolt of lightning," he wrote in *New In Chess*. He realized his king has to be near d2 to stop the rook invasion. He quickly found:

2 f3 ♗e6

3 ♔f2!

White can neutralize the rooks.

3 ... ♖ad8

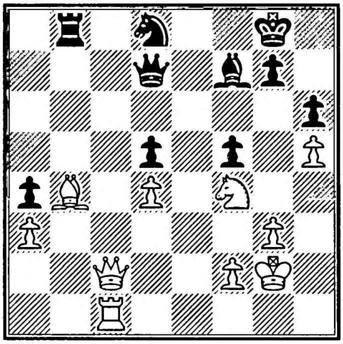
4 ♖ac1

Now on 4...♖d2+ 5 ♖xd2 ♖xd2+ 6 ♔e3 ♖b2 7 ♖d1 ♔f8 8 ♖d2! White's king will be able to exploit the weak queenside pawns once the rooks are traded.

Play continued 4...f5! 5 ♔e3 ♔f7 6 ♘a4 fxe4 7 fxe4 ♘d3 but White had a significant edge after 8 ♘xd3 ♖xd3+ 9 ♔f2 ♖d2+ 10 ♔e1! ♖xc2 11 ♖xc2 ♖d4 12 ♘c5. It became a winning advantage after 12...♗c8 13 ♖d2 ♔e7 14 ♖xd4 exd4 15 e5. The plan of f2-f3 and ♔f2-e3 was hardly deep. But carrying it out turned out to be the turning point of the game.

You can train yourself to be ready for such opportunities by putting your opponent's last move under a microscope. You want to determine its strengths as well as its weaknesses.

Vasiukov-Popovic
Vrsac 1989



Black to play

1 ... ♖b7

Often a move will not have a point, or at least not a significant one. But Black's choice here is easily explained. It stops ♕c7 and it prepares to trade off White's well-placed knight with ...♘e6. Black couldn't play the immediate 1...♘e6 because of a tactical problem. After 2 ♕xf5 ♘xf4+ 3 ♕xf4 ♗xh5?? his rook hangs on b8.

2 ♔g1

Is this move significant? It looks like some minor precaution, perhaps to avoid a queen check on e4 at some point in the future.

2 ... ♘e6?

Black fails to appreciate the main reason for White's move.

3 ♕xf5

Black could have avoided disaster now with 3...♘c5 (4 ♕xd7 ♘xd7). If 4 ♕e5 then 4...♘e4 offers some chances.

3 ... ♘xf4?

But he went ahead with the idea he had in mind since the diagram. He counted on 4 ♕xf4 ♗xh5.

4 ♖c8+!

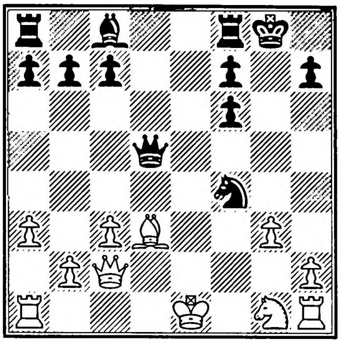
Black resigned after 4...♗e8 5 ♕xd7 ♖xd7 6 ♖xe8+.

He lost because he made two errors, not just the blunder of overlooking 4 ♖c8+. His first mistake was failing to realize the point of 2 ♔g1. It ensured that ...♘xf4 would not be a check and therefore White wouldn't have to recapture immediately.

Players often recognize the point of an opponent's move so quickly that their mind races ahead of their scoresheets. Instead of the move their opponent has just played, say ♗d3, they write down ♗xh7+, the move it threatens.

But when a good player makes a move that has no obvious point, a different kind of alarm bell should go off.

Topalov-Bareev
Linares 1994



White to play

White's B and KR are attacked. Trying to protect both pieces with 1 ♗e4 would lose to 1...♖e8!. It seems that White's best is a dubious Exchange sacrifice, 1 gxf4 ♕xh1.

1 ♗xh7+

Since there are only two legal replies, Black might be expected to move quickly. He didn't because he wanted to understand White's move. If White is going to play 2 ♗e4 he would still be lost after 2...♖e8!, despite the extra pawn. For example, 3 gxf4 ♖xe4+ 4 ♘e2 ♖xe2+! 5 ♔xe2 ♕g2+ and wins.

After a big think, Black saw the main point of 1 ♗xh7+. White intends 2 ♕e4, not 2 ♗e4. He is willing to enter an unfavorable ending after 2 ♕e4 ♕xe4+ 3 ♗xe4 ♖e8 4 gxf4 ♖xe4+ – because at least he will have gotten out of the opening alive.

However, Black noticed that 2 ♕e4 also allows forcing replies. Does it matter then whether Black's king is on g7 or h8?

1 ... ♔g7!

2 ♕e4

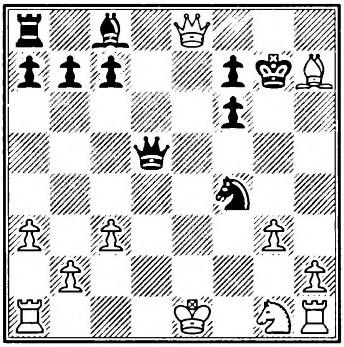
It wouldn't matter if he played, say, 2...♘d3+ 3 ♔f1!. But it does matter after:

2 ... ♖e8!

Thanks to 1...♔g7 White's next move will not be a check.

3 ♕xe8

When he chose 1...♔g7 Black calculated this far and saw that 3...♕xh1 allows White to escape (4 ♕g8+ ♔h6 5 0-0-0) and that 3...♘g2+ isn't convincing.



3 ... ♗f5!

But this creates a winning attack.

4 ♕xa8

Other queen moves allow 4...♘d3+ and ...♗xh7 with a deadly attack.

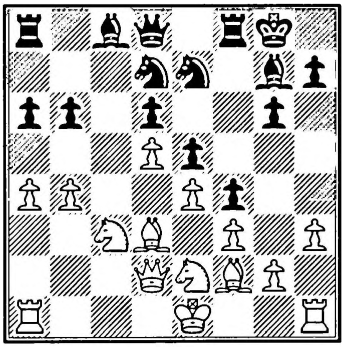
4 ... ♕e4+

White is mated after (a) 5 ♔f1 ♕g2+ 6 ♔e1 ♘d3+ 7 ♔d1 ♗g4+; (b) 5 ♔d1 ♕c2+ 6 ♔e1 ♘d3+, or, as the game went, (c) 5 ♔f2 ♕g2+ 6 ♔e3 ♘d5+ 7 ♔d4 ♕d2+ 8 ♔c5 ♕e3+!.

The variations are long but the lesson is simple. Black chose 1...♔g7! only after he understood the real reason for 1 ♗xh7+.

An opponent's last move can also spur you to change whatever general strategy you had in mind. That change, in turn, can induce your opponent to alter his plans. A subtle example of cat-and-mouse was the following.

Botvinnik-Ostojic
Belgrade 1969



White to play

White has more space on the queenside while Black seems to have the edge on the kingside. That seems to dictate where each player will attack.

1 a5

On 1...bxa5 White can enjoy nice pressure with either 2 ♖xa5 or 2 bxa5 followed by ♘a4-b6.

1 ... ♗f6

Black can slow his opponent's queenside attack with 1...b5. But he doesn't want to close matters until he knows where White's king will end up. For the same reason he delays launching a kingside attack. After 1...g5? White can decide against 0-0 and begin his own kingside play with 2 h4.

Black looked instead for a waiting move and 1...♗f6 seemed as good as any.

2 ♖a2

This is more useful than a waiting move because White will soon be in a position to win the a-pawn after 0-0, axb6 and ♖fa1.

2 ... b5

Black drew a natural inference from his opponent's last move. Since 2 ♖a2 gives up the option of 0-0-0, he concluded that White will castle on the other wing. Therefore it was time to rule out axb6.

3 ♔d1!

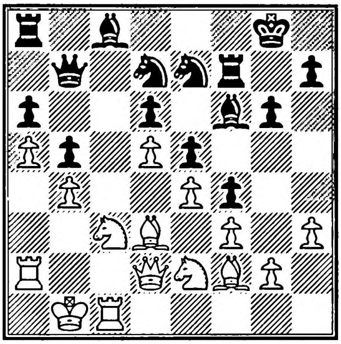
But he was wrong. "After Black has safeguarded not only 'his' but also 'my' queenside, the White king will be perfectly safe here," White wrote in one of his game collections.

3 ... ♖f7

4 ♔c1 ♕c7

5 ♔b1 ♕b7

6 ♖c1

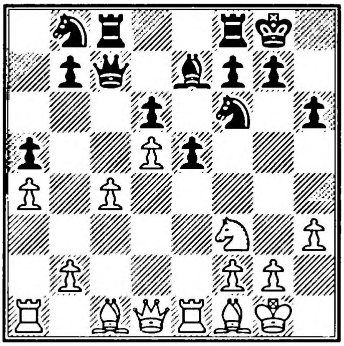


White has a growing edge because he can dominate the c-file and try to penetrate at c7 and c6.

After each move by your opponent you should try to determine if it changed matters in some significant way. Some moves are basically "passes," such as 1...♗f6. Trying to figure out the purpose can be a waste of your time.

On the other hand, many moves will change matters in more than one way. There is a danger in recognizing only one of those ways. You may see "the point" of the move, not realizing there is a second point.

Wu Wenjin-Zhang Zhong
Yongchuan 2003



White to play

The two players are watching the queenside, where the pawn structure has just undergone a major change due to the advances a2-a4 and ...a5. As a result Black can occupy b4 safely, while White can plant a piece on b5. The two outposts appear to balance out.

1 ♖a3

This seems easy to understand. The rook is headed to b5 where it can take part in an attack on the a-pawn with 2 ♖b3, 3 ♖b5 and 4 ♗d2. If Black defends the pawn with ...b6, White can continue favorably with b2-b4.

1 ... ♘a6?

Black anticipates that plan: On 2 ♖b3 ♘c5 3 ♖b5 b6 he can meet b2-b4 with ...axb4 and ...♖a8, after which White's a-pawn will also be a target.

2 ♘h4!

Black understood one point of 1 ♖a3 but not the other. The rook can also head for the kingside, which is now more vulnerable than the queenside.

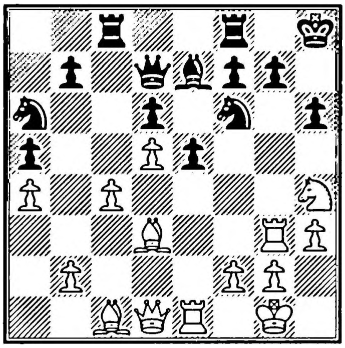
2 ... ♕d7

If Black tries 2...♘xd5, threatening ...♗xh4, White has a strong answer in 3 ♘f5 ♘f6 4 ♖g3 and ♖xg7+ or ♗xh6.

3 ♖g3 ♔h8

Black meets the 4 ♗xh6 threat but has simply too few pieces on the kingside to defend.

4 ♗d3!



The threat of ♗f5 or ♘f5 is decisive. For example, 4...e4

5 ♗xe4 ♘xe4 6 ♖xe4 ♘c5 7 ♗xh6! gxh6 8 ♕d4+ f6 9 ♕e3! and mates.

Black lost because he misunderstood 1 ♖a3. Had he realized the rook might also be headed for the kingside he would have delayed committing his QN and played a defensive measure such as 1...♘h7!. If White then concentrates on the queenside with 2 ♖b3 he can continue 2...♘a6 3 ♖b5 ♘c5 as he intended.

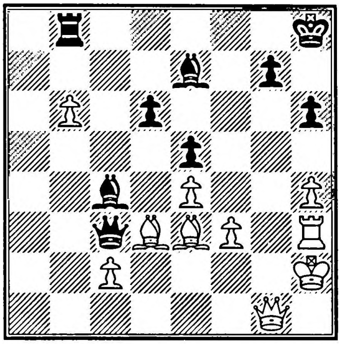
FINDING THE DOWN-SIDE

The most common error that inexperienced players make about their opponent's last move is failing to appreciate its strengths. But the most common error that *experienced* players make is failing to appreciate its weaknesses.

As Siegbert Tarrasch put it, every move short of mate weakens "some part of the position." By the simple fact of moving, a piece will attack and control new squares and lose control of others. The move creates possibilities for both players.

For example, Black's 1...♖b7 on p.43 prepared ...♘e6. But it also set up tactical opportunities for White, such as a fork (2 ♘d3 and 3 ♘c5). And it created the first-rank weakness that cost Black the game. Here's a simpler example.

Topalov-Anand
Wijk aan Zee 2004



White to play

You've seen positions in magazines or books with the caption "White to play and win." But that is an artificial situation. When you get such a position over the board there won't be a benevolent bystander there to whisper, "You have a forced win."

The "White to play" situation is artificial in a second way. In a real game, you will have seen your opponent's last move. Here you haven't. But if that bystander discloses, "Black just played his bishop from f7 to c4," that information can act like a trigger.

1 **♕g6!**

From Black's point of view, ...♗c4 was good because it threatens to win a pawn (1...♗xd3).

But it also had a down-side because it removed a defender from the kingside. After 1 ♕g6, a move clearly unplayable while the bishop was at f7, White has an overwhelming attack in view of ♖g3 and/or ♗xh6.

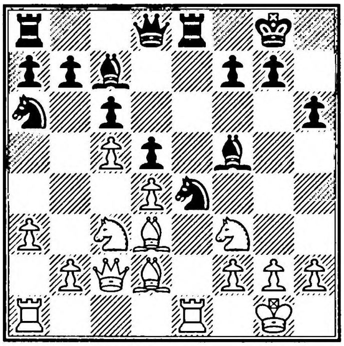
1 ... ♗xd3

2 ♖g3

Any defense of g7 will allow a crushing ♗xh6. For example, 2...♖g8 3 ♗xh6 ♗f6 (3...gxh6 4 ♕xg8 mate) 4 ♕h5 or 2...♗f6 3 cxd3 ♕xd3 4 ♗xh6 ♖b7 (4...gxh6 5 ♕xh6 mate) 5 ♗g5!.

Tarrasch's observation can help you spot promising candidates in quieter positions. We saw, for example, on p.23 how Black's 1...♔f8 spurred White to find 2 ♗f4!, which exploited the new possibility of ♗xd6 with check. Even in positions where there doesn't seem to be any tactical tension, your opponent's last move can suggest a candidate that is so obviously good that you don't have to devote more than a moment to analyze it.

Anand-Kasimdzhanov
Hyderabad 2002



Black to play

1 ... ♗a5?

White was naturally suspicious about this move since it seems to invite 2 b4, a move that gains time and space. What's the trick? He soon found the answer in 2...♗xb4! 3 axb4 ♘xb4, which regains the sacrificed piece at a two-pawn profit.

But there's a second question to ask. Besides setting that trap, what is the idea behind 1...♗a5 ? White realized that it prepares ...♗xc3, to solidify the knight at e4.

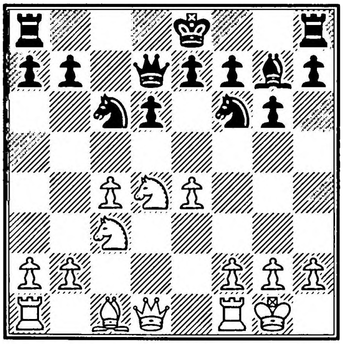
At this moment White might have decided to investigate 2 ♘xe4. But masters are superb at judging how much calculation is required of a candidate. In this case, White would have to look six moves ahead before he can be sure 2 ♘xe4 is good. He chose the more practical option which required virtually no calculation.

2 ♗f4!

The down-side to 1...♗a5 is that it abandoned the board's best dark-squared diagonal. Black can't undo his error by playing 2...♗c7 because White would win a pawn by taking on c7 and e4. As the game went White's edge became apparent after 2...♗xc3 3 bxc3 ♘c7 4 h3.

SHIFTING THE FURNITURE

It makes sense that in a middlegame, when all the forces have been placed on more or less reasonable squares, any shifting around of the furniture is going to create new opportunities for both sides. This can begin earlier, in the opening, as in that Kasparov-World game from Chapter One.

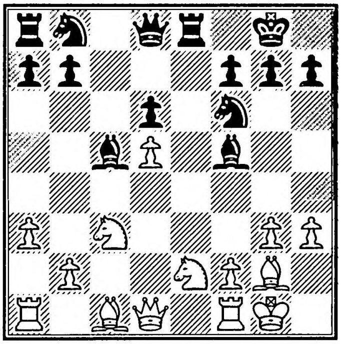


White to play

White realized that Black's last move, 9...♗g7, threatens 10...♘xe4 (11 ♘xe4 ♘xd4; 11 ♘xc6 ♘xc3). He eliminated the tactics with 10 ♘de2. But there's a down-side to even this modest move. It allowed 10...♕e6!, which attacks two pawns and forced White into the double-edged 11 ♘d5 ♕xe4.

When your opponent rearranges his pieces he may be furnishing you with the opportunity to find a plan. For example, you will often see Black in a Sicilian Defense place his QB or QN on d7 and his opponent immediately responds g2-g4!?. The reason is that a kingside attack with g4-g5 is usually stronger when Black cannot retreat his attacked f6-knight to d7. Here's a similar situation from a queenside opening.

Kasparov-Csom
Baku 1980



Black to play

1 ... ♘bd7

White regarded this as an error because of:

2 g4!

Black's traffic problem allows an effortless kingside initiative. For example 2...♗g6 3 ♘g3 threatens to win a piece with 4 g5. Then 3...♘e5 4 g5 ♘fd7 5 ♘ce4 prepares ♘xc5 followed by f2-f4-f5.

2 ... ♗e4

3 ♘g3 ♗xg2

4 ♔xg2

White's attack seems to play itself because he just has to look for ways to push his pawns, e.g. 4...♘e5 5 g5 ♘fd7 6 h4.

4 ... ♘f8

5 g5 ♘6d7

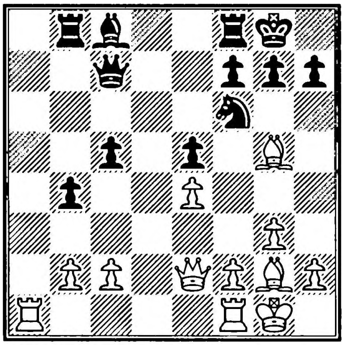
6 h4

After one more Black mistake, 6...♘e5?, White pieces began to swarm over the kingside (7 h5 f6 8 ♘ce4! fxg5 9 ♗xg5 ♕b6 10 h6) and he delivered mate 12 moves later.

TACTICS AND TARRASCH

Each defensive measure your opponent takes may have a downside you can exploit. This helps explains the dynamics of the initiative: A threat is parried by a defensive move – but that move may allow a new threat. The cycle is repeated until the defender runs out of resources.

Sutovsky-Zapata
Moscow 2001



Black to play

White's last move, 1 ♗g5, threatened to weaken the kingside with ♗xf6.

1 ... ♖b6

This appears better than a knight retreat but it has a drawback.

2 ♖a5!

This would not have been possible before ...♖b6. White prepares to win the pawn with ♕c4 or to double rooks on the a-file.

2 ... ♘e8

Now 3 ♕c4 ♖c6 and ...♗e6 would allow Black to defend.

3 ♗e3!

But thanks to 2...♘e8, Black can't protect the c-pawn with ...♘d7.

3 ... ♖c6

4 ♖fa1

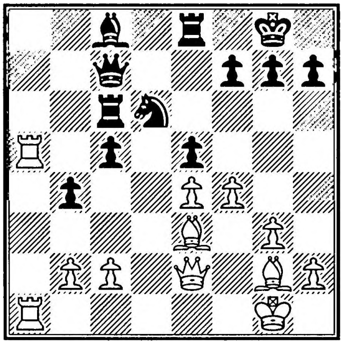
Chess seems like an easy game when all you need do is ask: What did his last move weaken? Thanks to routine, forcing moves White has a promising initiative. He is thinking about ♖a7, now that 3...♖c6 has denied Black the defense of ...♖b7.

4 ... ♘d6

5 f4!

White turns to the e-pawn, which was left unprotected by Black's last move. Now 5...f6 would create kingside problems (6 ♖a8 ♗b7? 7 ♖xf8+ ♔xf8 8 fxe5 fxe5 9 ♕h5).

5 ... ♖e8



Black finally plays a move that doesn't seem to weaken anything.

6 fxe5!

But the rook is a poor defender because it can be threatened easily, e.g. 6...♖xe5 7 ♗f4 (7...♖e8 8 e5).

6 ... ♘b7

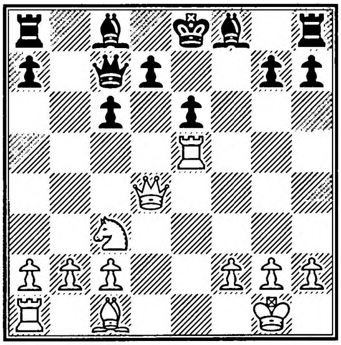
7 ♖a8 ♕xe5

8 ♕b5!

White was soon winning (8...♕e6 9 ♖1a6! ♖xa6 10 ♖xa6 ♕e5 11 ♖a8 h6 12 ♕c6 ♘d6 13 ♕xc5).

Black was so passive in the first diagram that he never got a chance to fight back after 1 ♗g5. But in positions that are more balanced, the game can turn into a series of reactions. White tries to exploit Black's last move. Black, in turn, replies with a move that tries to take advantage of White's last move. And so on:

Shirov-van Wely
Bundesliga 2002



Black to play

White has just captured on e5. That seems to invite 1...♗d6. But there is a strong reply in 2 ♖g5, attacking the newly unprotected g-pawn.

1 ... ♗e7!

Black finds another way to exploit ♖xe5, by threatening 2...♗f6.

2 ♗g5

White meets the threat and also tries to exploit 1...♗e7. General principles indicate that a trade of bishops should favor him because it eliminates Black's two-bishop edge. This is borne out by 2...d6 3 ♗xe7 ♕xe7 4 ♖e3 and White is slightly better. Black could accept a considerable risk with 3...dxe5!? 4 ♕c5! but decides instead to try to punish 2 ♗g5 in a different way.

2 ... ♗d6?

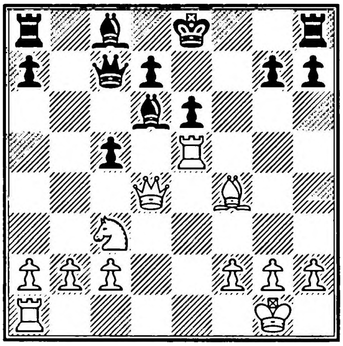
Black reasons that while 1...♗d6 was dubious, the attack on the rook is stronger here because 3 ♖g5 is impossible.

3 ♗f4!

This is much stronger than it would have been a move earlier, because 3...d6 is now illegal. Very risky for Black are 3...♗xe5 4 ♗xe5 ♕b6 5 ♕g4 or 5 ♕d6.

3 ... c5

He wants the White queen to relinquish control of a square or two before he captures on e5. It's not certain that White would have enough compensation in an endgame after 4 ♖xe6+ dxe6 5 ♕xd6 ♕xd6 6 ♗xd6 or 4 ♕e4 ♗xe5 5 ♗xe5 d5 6 ♗xc7 dxe4 7 ♘xe4.



4 ♕e3!

But Black's last move gave White new tactical ideas, ♘b5 or ♘d5, so he decided to stay in the middlegame. For example, 4...♗b7 5 ♘b5 ♕b6 6 ♖xe6+! dxe6 7 ♕xe6+. Black was soon lost after 4...a6 5 ♘d5 ♕c6 6 ♖g5, e.g. 6...♗xf4 7 ♘xf4 and ♖xc5.

Your opponent's last move (or two) can also trigger another reaction, this one in the back of your mind. His moves may have created a position on the board that seems vaguely familiar. You are recognizing a pattern. From that foundation you can make a leap of imagination using that mysterious insight we call intuition.

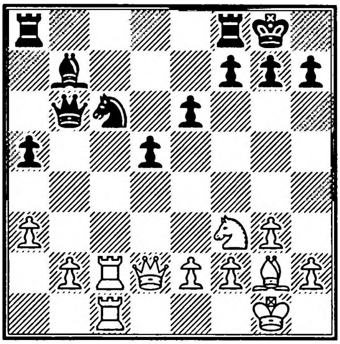
INTUITION

When artificial intelligence experts began to tackle the problem of creating a machine that could play chess well, the task appeared to be merely a matter of good engineering. After all, it should be simple to program tactical vision into a computer. General principles seem like the kind of information that can be converted to binary code by, for example, assigning extra value to knights that are centralized and rooks that occupy open files.

But to advance beyond a certain skill level a player has to learn the exceptions to positional rules, such as when it pays to post a knight on the side of the board. “Dogmatic teachers like Tarrasch and Euwe can make C players into B players but then these players have trouble going any further because of their dogmatic rules,” Bent Larsen once said. “They have difficulty finding the exception.” Ludek Pachman, writing in the early 1970s, said this was the reason computers would never be able to play chess well. Machines can’t be programmed to find the exception that works better than the rule, he said.

For humans, appreciating the value of exceptions is largely a matter of developing intuition. A master will violate general principles by playing a move that he knows usually works in *this kind of position.*

Kaidanov-Rohde
Philadelphia 1992



White to play

White would like to play ♘d4 or attack the center with e4. He found a way to do both.

1 ♕e3!

More promising than 1 e3 a4 2 ♘d4 ♘e5 and ...♘c4, e.g. 3 ♕b4? ♕xb4 4 axb4 ♘d3.

1 ... ♕xe3

2 fxe3

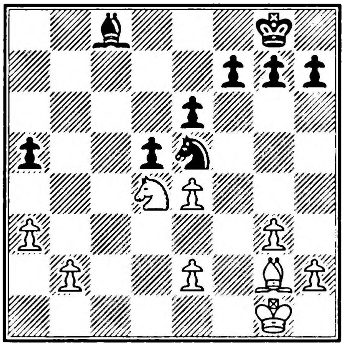
Despite the doubled and isolated e-pawns White holds the upper hand. He threatens 3 ♖xc6 and can meet 2...♘e7 with 3 ♖c7.

2 ... ♖fc8

3 ♘d4

Now 3...♘xd4 4 exd4 ♖xc2 5 ♖xc2 favors White slightly because of the potential passed b-pawn after 5...♖c8 6 ♖xc8+ and 7 e4.

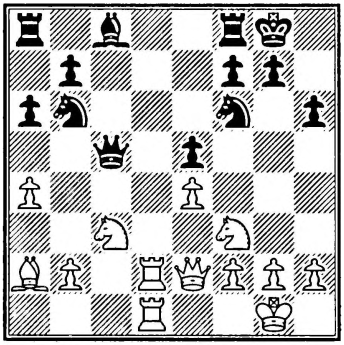
3	**...**	**♘e5**
4	**♖xc8+**	**♖xc8**
5	**♖xc8**	**♗xc8**
6	**e4**	



In a difficult position Black missed his best chance for counterplay (6...♘c4) and found he was lost following 6...♗b7? 7 exd5 exd5 8 b3. He could do nothing to stop White's king from racing to support a winning advance of the b-pawn.

But 1 ♕e3! is hardly the kind of move that would suggest itself – unless you're aware of a game of Mikhail Botvinnik's. "I borrowed this move from the game Botvinnik-Sorokin, U.S.S.R. Championship 1931," the winner wrote in *Inside Chess*. That may sound like an obscure reference but Botvinnik had included it in his various best-game collections. This is what White remembered.

Botvinnik-Sorokin
Soviet Championship 1931



White to play

1	**♕e3!**	**♕xe3**
2	**fxe3**	

White correctly believed Black's queen held his position together. A trade of queens would pose problems for Black in defending the e-pawn. The doubling of the White e-pawns is of "no significant importance," he wrote.

This last point is revealing. If you could identify four or five qualities that distinguish masters from non-masters, one of them would surely be the ability to quickly recognize which factors are most relevant in a position. Here White properly concluded that the doubled e-pawns just weren't as relevant as control of the d-file and the weakness of e5.

2 ... **♗g4**

3 **a5**

Black's knight lacks a good square (3...♘bd7 4 h3 ♗xf3 5 gxf3 ♘c5 6 b4).

3 ... **♘c8**

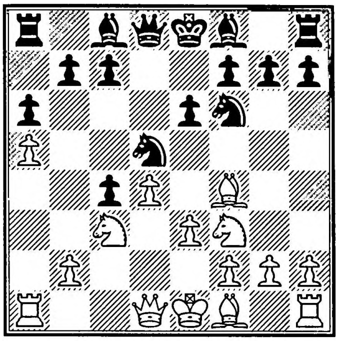
4 **♖c1**

Black parried the threat of ♘xe5 with 4...♗xf3 but after 5 gxf3 ♘e7 6 ♘d5 he was losing. Equally poor was 4...♖e8 5 h3 ♗h5 6 ♘h4 and 7 g4 or 5...♗d7 6 ♖cd1 ♗c6 7 ♖d8.

The two positions before ♕e3 are not very similar. The only features they seem to share is that White's biggest asset is his doubled rooks and Black's defenses are held together by his queen. But Kaidanov recognized those features alone were a pattern and that suggested he should take a close look at 1 ♕e3.

"Even the most unfamiliar position in chess reminds one of something," wrote Vasily Ivanchuk. That memory, triggered by your opponent's last moves, provides you with candidates you might not consider otherwise.

Gelfand-Graf
Plovdiv 2003



White to play

Black has just played his knight to d5, where it attacks the bishop. If White responds 1 ♗g3 Black obtains a comfortable game from 1...♗b4 2 ♕c2 c5.

1 **♗xc4!** **♘xf4**

2 **exf4**

Black seems to be doing well because he has gained the 2Bs and inflicted pawn damage. But White knew that such positions generally favor White. He remembered two fossil forerunners:

Alekhine-Rubinstein, Carlsbad 1923: 1 d4 d5 2 c4 e6 3 ♘f3 ♘f6 4 ♘c3 ♗e7 5 ♗g5 ♘bd7 6 e3 0-0 7 ♖c1 c6 8 ♕c2 a6 9 a4 ♖e8

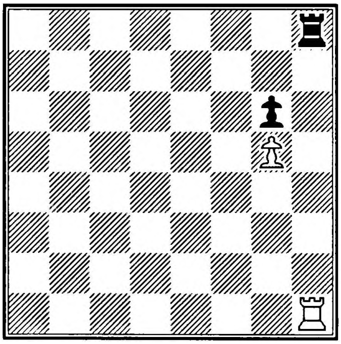
10 ♗d3 dxc4 11 ♗xc4 ♘d5 and to avoid trading bishop White played 12 ♗f4!? ♘xf4 13 exf4. Black managed to free his game with 13...c5 14 dxc5 ♕c7 but was lost soon after 15 0-0 ♕xf4 16 ♘e4! ♘xc5 17 ♘xc5 ♗xc5 18 ♗d3.

Rubinstein-Canal, Rogaska Slatina 1929: 1 d4 ♘f6 2 c4 e6 3 ♘c3 d5 4 ♘f3 ♗e7 5 ♗f4 c6 6 e3 ♘bd7 7 h3 0-0 8 ♕c2 dxc4 9 ♗xc4 ♘b6 10 ♗b3 ♘fd5 11 0-0 ♘xf4 12 exf4. White's advantage was manifest following 12...♘d5 13 g3 ♘xc3 14 ♕xc3 ♕d6 15 ♖ac1 ♗d7 16 ♘e5.

In the diagram Black didn't seem to sense the trouble he was in and was losing soon after 2...♗e7 3 0-0 0-0 4 ♘e5 ♕d6 5 ♖e1 c6 6 f5! exf5 (6...♘d5 7 ♕b3) 7 ♘xf7! and 8 ♕b3.

CAN INTUITION BE LEARNED?

You can develop and exploit this kind of intuition by studying master games and then recognizing the critical patterns when they appear in your own games. This recalls a story Aron Nimzovich told of how, as a young player, he reached a position at Coburg 1904 in which the critical position was similar to this.



White to play

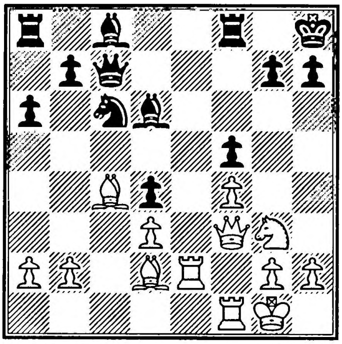
There was a lot more happening on the board than this and Nimzovich had good reason to choose the candidate he did, 1 ♖d1. But when he analyzed the game he was told by Tarrasch, then the voice of authority in Mitteleuropa chess, that 1 ♖h6 was correct. If Black trades rooks, White creates a distant passed pawn.

Nimzovich objected that 1 ♖d1 was also good. "No," Tarrasch replied, "You *had* to play ♖h6 *because that is the thing to do in cases like this.*"

Nimzovich didn't like what he was told and began to adopt a style tilted towards finding paradoxical candidates and avoiding the standard moves that were played "in cases like this."

His subsequent success created new patterns. Raymond Keene, who related this story in his book on Nimzovich, recalled how he tried to emulate this style in his own games by playing Nimzo-moves.

Nimzovich-Rubinstein
Dresden 1926



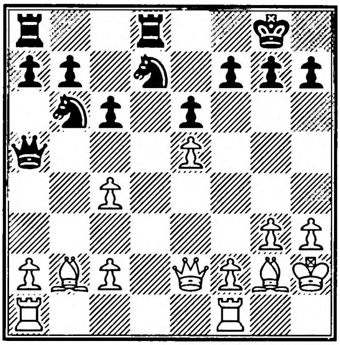
White to play

1 ♘h1!

The knight, which was doing little on g3, is headed to a powerful post at g5. White won after 1...♗d7 2 ♘f2 ♖ae8 3 ♖fe1 ♖xe2 4 ♖xe2 ♘d8 5 ♘h3 and ♕h5/♘g5. Keene was so impressed by this that "I deliberately created situations in my next few games where the move ♘g3-h1 was possible in the belief that this mystical retreat would somehow result in a miraculous increase of energy in my position."

But not all intuition is a matter of recognizing a pattern. The great instinctual players such as Jose Capablanca, Vasily Smyslov and Anatoly Karpov had an unerring ability to find the best squares for their pieces without calculation. This, too, was intuition but they developed it while very young – before they were acquainted with the vast reservoir of past games. They didn't put their bishops on c5 or g4 because they had seen Morphy do it in "cases like this." They developed their own insight into the nature of bishops.

Smyslov-Flohr
Soviet Championship 1950



White to play

Boris Spassky said Smyslov had "unbelievable intuition. I called it his 'hand.' That is, his hand knew on which square to place each piece, and he didn't have to calculate with his head."

We sometimes think of piece placement as finding the right square for a knight but Smyslov also had a remarkable skill with bishops and rooks.

1 ♗d4!

Black was doing very well because of the weak pawns he can exploit with ...♕a6 or ...♕c5. If White had to defend passively, such as by moving his KR so he can play ♗f1, he would be admitting he is worse. His hand takes over.

1 ... ♕a6

2 ♖ab1

White is willing to lose the c4-pawn if he can activate his rooks and bishops. But where do those pieces belong?

2 ... ♖ab8

3 f4

They stand excellently after 3...♕xc4 4 ♕xc4 ♘xc4 5 ♗xa7.

3 ... ♘xc4

Now 4 ♗xa7 ♕xa7 5 ♕xc4 ♕c5! favors Black substantially.

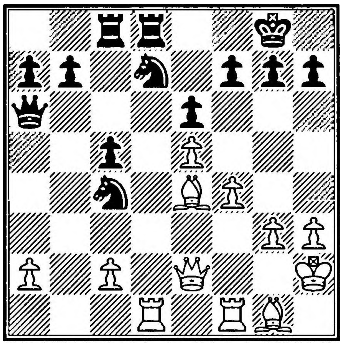
5 ♖bd1

The right rook, since White wants the other to be at f1 when he plays f4-f5.

5 ... c5

6 ♗g1! ♖bc8

7 ♗e4!



The other bishop found its best square at g1, where it takes aim at the only dark-squared target, c5. On e4 the light-squared bishop can attack both wings (♗d3 and f4-f5).

7 ... ♘f8

8 f5 exf5

9 ♗xf5

White is no longer worse (9...♘e6? 10 ♗xh7+ ♔xh7 11 ♕h5+ ♔g8 12 ♕xf7+ and 13 ♖f5).

9 ... ♖b8

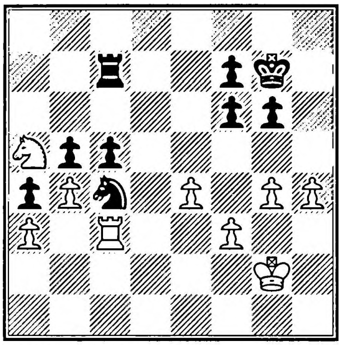
10 ♗xc5

A draw was agreed in a few moves.

INTUITION AND SACRIFICE

The most impressive expression of intuition is a sacrifice. Sacrificial candidates occur instantly to some players – while the same moves wouldn't occur to other players if they had all day. This goes beyond the standard sacrifices that you can learn from old games, such as a ♗xh7+ mating combination or ...♖xc3 in the Sicilian Defense. Opportunities for intuitive sacks arise all the time, even in the endgame.

Hickl-Belyavsky
Bundesliga 2002



Black to play

White has just played 1 f3. On the general principle of creating a passed pawn, Black might first look at 1...♘xa5 or 1...cxb4. But he won faster with:

1 ... ♘xa3!

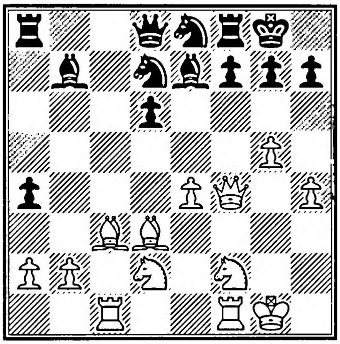
Intuition told Black that a sack which creates two connected pawns is likely to succeed.

2 ♖xa3 cxb4

The pawn avalanche cascaded – 3 ♖a1 ♖c3 4 ♔g3 b3 5 ♖b1 b4 6 ♔f4 – and Black finished off with 6...a3! 7 ♘xb3 ♖xb3! and wins (8 ♖xb3 a2).

When intuition suggests a risky move – either by giving up material (1...♘xa3!) or making positional concessions (1 ♕e3!) – it means that the candidate is worth calculating. But in some cases intuition can be almost a substitute for concrete analysis.

Shirov-Svidler
Tilburg 1997



Black to play

If White is allowed to play ♘g4 followed by ♘f3-d4-f5 he would have the upper hand.

1 ... ♘e5!

Black considered this a routine sacrifice, the kind that often arises in the Sicilian Defense. He couldn't be sure he would get sufficient compensation but he relied on the past experience of others, who obtained strong play on dark squares "in cases like this." Since only a pawn was at stake, Black felt he could rely on intuition rather than calculate specific variations.

2 ♗xe5

"I would never take such a pawn," spectator David Bronstein said, expressing his own intuition. "In such positions White must play ♗e2 and defend for a time."

2 ... dxe5

3 ♕xe5 ♗d6

Black has excellent play (4 ♕b5 ♖b8 5 ♕xa4? ♗g3). The game turned in his favor after 4 ♕f5 g6 5 ♕f3 ♗e5 6 ♘c4 ♗d4 7 ♖cd1? f5!.

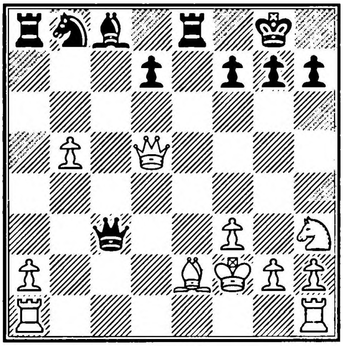
The Sicilian Defense seems to run on intuition. "I thought too much here," Kasparov said of his inferior 18th move against Vitaly Tseshkovsky in the 2004 Russian Championship. "In a different situation, for example in a blitz game, I would play ...g6! without thinking," he said, referring to a standard defensive resource in the Sicilian.

Vishy Anand, commenting on a sharp Sicilian he played at Dortmund 1996, noted he had left his a-pawn hanging at one point. But neither player spent "more than one second" to consider it, he said. "In such a position you just know that Black cannot afford to go pawn grabbing."

You just know. That's the essence of a well-developed intuition. It's infuriating to hear a master speak this way. But that, unfortunately, is the nature of intuition. It can't be easily explained even by the players who depend most on it.

Intuition can also give you a sense that there is a hidden candidate in a position. This happens when all the "obvious" candidates fail your test of analysis. It's your intuition that tells you to keep looking.

I. Sokolov-Smirin
Wijk aan Zee 1993



Black to play

White has an extra pawn and a big threat, ♕xa8. Black looked at the obvious 1...♕e3+ but the trail runs cold after 2 ♔g3 and 2...♖e6 3 ♗d3. He also saw that defending against ♕xa8, such as with 1...♖a4, isn't forcing enough, and White would be all right after 2 ♖he1. Eventually he found a strong move "which I sensed was there," he wrote in *New In Chess*.

1 ... ♗b7!

2 ♕c4

Once he began looking at 1...♗b7 Black discovered the tactical justification – 2 ♕xb7 would lose the queen to 2...♕c5+ and 3...♖a7.

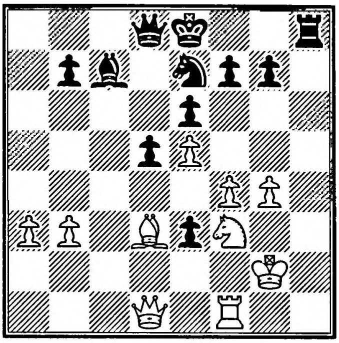
2 ... ♕e3+

Black has a winning attack (3 ♔f1 ♖a3). He grabbed material after 3 ♔g3 h5 4 ♕f4! ♕xf4+ 5 ♘xf4 g5 but 3...d5 would have been even better.

Black spent 25 minutes to find and confirm 1...♗b7. How long you devote to analyzing a candidate before you give up on it and turn to another move usually depends on how you feel about it. A move you were strongly attracted to on the basis of intuition is harder to abandon than one you considered because of general principles or positional desirability.

van den Doel-Lputian

Wijk aan Zee 1999



Black to play

Black has an extra pawn. But White has just played ♔g2 and that was the trigger that made Black look for a way to win more forcefully.

1 ... d4!

"Intuition insistently prompted me to make this move," Black wrote in *64*. The move opens a diagonal leading to White's king, creates an outpost at d5 for the knight and protects the e-pawn.

He noticed that the pawn was simply hanging on d4 (2 ♘xd4 ♕xd4?? 3 ♗b5+). But that didn't seem like a good enough reason to give up so quickly on a move Black felt so strongly about.

He looked further and found that 2 ♘xd4 could be met by 2...♕d5+ 3 ♘f3 and now 3...g5! offers Black a powerful initiative.

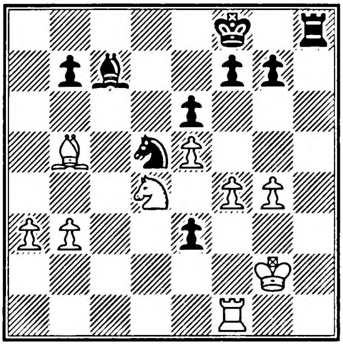
2 ♗b5+ ♔f8

3 ♕xd4

Still bad is 3 ♘xd4 ♕d5+ because of 4 ♘f3?? ♕xb5 or 4 ♖f3 ♗b6.

3 ... ♕xd4

4 ♘xd4 ♘d5

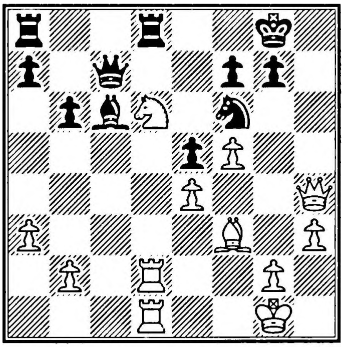


Black's faith in 1...d4 paid off. His superiority becomes evident after 5 ♘e2 g5! 6 f5 ♗xe5 7 fxe6 ♖h2+ and he won soon after 8 ♔g1 f6 9 ♖d1?! ♘c7 10 ♗c4 ♘xe6 and ...♘f4. Moreover, his instinct was confirmed by analysis of the safer alternatives – 1...♘c6 would have allowed 2 ♖h1 with counterplay and 1...♗b6 could be met by 2 ♗b5+ ♘c6 (2...♔f8 3 ♖h1) 3 ♕c2 ♕c7 4 ♖c1.

Intuitive sacks often challenge traditional chess thinking. The conventional wisdom since Steinitz holds that you should attack when you have the advantage, such as a lead in development. But when David Bronstein made one of his most famous sacks, an intuitive 16 ♗xh6 against Paul Keres at Goteborg 1955, he had no lead in development or significant advantage of any kind. Classical thinkers, such as Yefim Geller, tried to refute the sack in the post-mortem because it just couldn't be sound. But it was.

Of all the candidate cues, intuition is the one that masters trust the most. They ridicule general principles as rules that need to be broken. But they revere the mysterious "feel" for the right move. They make intuitive sacks faster, with more optimism and confidence – and less calculation – than they would an equally risky move based on other cues.

Kasparov-van Wely
Moscow 2004



White to play

Black threatens to destroy the coordination of White's pieces and win back material with ...♗a4. But White's position looks too promising to go into 1 ♘c4 ♗a4 2 ♖xd8+ ♖xd8 3 ♖xd8+.

1 g4 ♗a4!

2 g5! ♗xd1

3 gxf6

"It's terrible to play this in time pressure," White said afterwards. "But I trusted intuition."

3 ... ♖xd6?

4 ♖g2! g6

5 fxg6 Resigns

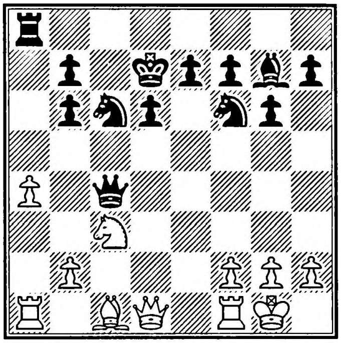
It's mate after 5...♖xf6 6 g7. But when White placed his trust in 3 gxf6 he was sacking quite a bit more than the pawn Black did with 1...♘e5 on p.60. His trust would have proven to be misplaced if Black had found 3...gxf6 4 ♕xf6 ♖xd6! 5 ♖xd6 ♗xf3, after which White would have nothing better than perpetual check. This is why it's so dangerous to rely on cues alone to select a move. Analysis does count for something in chess.

DIFFERENT CUES, DIFFERENT CANDIDATES

You can use the cues considered in the past two chapters to select the majority of moves in a typical game. But there is a caveat: Don't expect two cues to endorse the same move. There are times when they do and times when they don't. For example, in the game from the first chapter:

Kasparov-World

Internet 1999



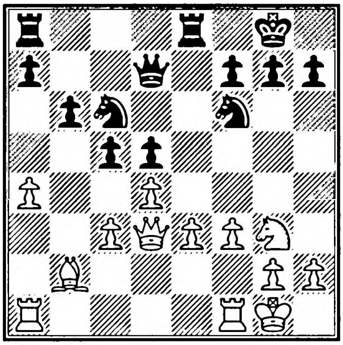
Black to play

Four teenage masters were designated to propose candidates for the World to vote on. Often there was a consensus or even unanimity among the four coaches. But for this move there wasn't.

One coach liked 1...♖a5, which is consistent with Black's previous move (...♖a8). Another preferred 1...♘d4, a general principle move. A third coach liked 1...d5, which might be called the positionally desirable move. And the fourth recommended 1...♘e4, which is based on the tactics of the 2...♘xc3 threat. (She submitted the most detailed analysis and that helped win a plurality of votes for 1...♘e4.)

Finally, be aware that in the course of a game you may be spurred by different cues at different times.

Zviagintsev-Alexandrov
Poikovsky 2002



Black to play

The opening is not yet over but both players have at least a vague notion of what is possible in the immediate future because similar positions have arisen hundreds of times before.

1 ... c4!

"The most principled move," White wrote in *64*. He would stand very well if Black allows him to play e3-e4. For example, on 1...♖ac8 White obtains the advantage with 2 e4 (2...cxd4 3 cxd4 ♘b4 4 ♕b3).

2 ♕e2

White is consistent with his plan of e3-e4. In response, 2...♘a5 looks like a good idea, with the intent of occupying b3 and perhaps winning the a-pawn. But both players suspected – without having to calculate – that 3 e4! would grant White a very strong attack. They suspected as much because 3...♘b3 4 ♖ae1 ♕xa4 5 e5 is very similar to a famous game, Botvinnik-Capablanca, AVRO 1938, which White won in brilliant style.

2 ... h5!

White's last move had a downside. His knight lost its best square for retreat, e2. Black wants to meet 3 e4 with 3...h4 (since 4 ♘f5?? ♕xf5 costs a piece).

3 ♖ae1

White follows his plan.

3 ... ♘e7

Black continues to discourage it (4 e4 would again be met by 4...h4).

4 ♕c2 h4

5 ♘h1 ♘g6

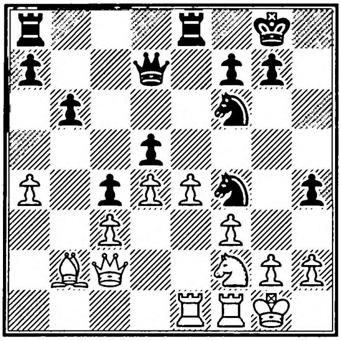
If White takes time for 6 ♗c1 (to prepare e3-e4 by averting the reply ...♘f4) Black can take over the initiative with 6...b5. Then 7 e4 b4! is promising, e.g 8 cxb4 dxe4 9 fxe4 ♕xd4+ 10 ♘f2 c3.

6 e4?

Best was preparing this advance with 6 ♘f2.

6 ... ♘f4

7 ♘f2



7 ... dxe4!

White thought this was bad because it usually is in similar positions. "I didn't even consider this move seriously," he wrote. However, Black didn't trust that kind of intuitive judgment. He did the calculation and saw that if one of his knights reaches d3 he is at least equal.

8 fxe4 ♘g4

As the position becomes sharper, the players depend more on tactical vision than general cues. Black threatens 9...♘xf2 and 10...♘d3.

9 ♘d1!

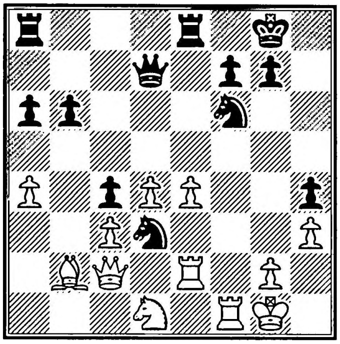
A somewhat surprising but logical decision. He preserves the only piece that can oust a knight from d3, compared with 9 ♗c1 ♘xf2 10 ♗xf4 ♘d3.

9 ... ♘d3

10 ♖e2 a6

Black has run out of tactical ideas so he prepares 11...b5. A general principle move such as the immediate 10...b5, to open a file for the QR and create a passed a-pawn, was a good alternative.

11 h3 ♘f6



12 ♖xf6!

White didn't reveal whether this or 12 ♘f2 was the first move he looked at. A bit of calculation would reveal that 12 ♘f2 can be strongly met by 12...♘h5!, intending both 13...♘g3 and 13...♘hf4, e.g. 13 ♘xd3 cxd3 14 ♕xd3 ♘g3.

12 ... gxf6

13 ♘f2

Intuition indicated to White that the ruined Black king position might compensate for the loss of the Exchange. This is borne out by 13...♘xb2 14 ♘g4! ♖e6 15 ♕xb2 or, as the game went, with 13...f5! 14 ♕d2! ♕e6 15 ♘xd3 cxd3

16 ♕xd3 fxe4 17 ♕e3 and c3-c4/d4-d5/♖f2-f4 with promising chances. White eventually won.

The choices we face become more difficult when our cues and criteria conflict with one another, as they sometimes did in this game. If you're limited to a single agenda, chess can be simple. Anand once explained how he was able to take only a half hour to play a very complex game that was voted the best of the more than 500 in a recent edition of *Chess Informant*. He felt he "should just ignore everything except (delivering) mate." And that worked perfectly.

Don't expect to play great games in 30 minutes like Anand. But as we'll see in the next chapter you can train yourself to reduce the amount of analysis you perform when considering candidates.

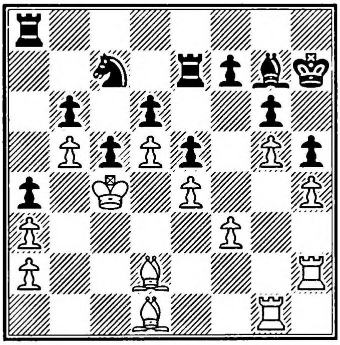
4: How Much Analysis?

After spotting a worthy candidate you are ready to conduct the "If I go there, and he goes there ..." analysis. But how much analysis is necessary? This is a case when less is often much better than more. Gauging the right amount will help you avoid time trouble, headaches and grief.

In many quiet positions you can go ahead and play the candidate virtually without any calculation because there are no significant forcing replies to worry about. That was the case in the first example of this book when White chose 20 ♖ad1 and Black responded 20...♗f8. Both were low-calculation – or "low-calc" – moves.

In playing a low-calc move you can be guided almost entirely by the broader cues such as general principles. If there is nothing tactical going on, you might not even care what your opponent's last move was. Here's a remarkable example of that.

Larsen-Gligoric
San Antonio 1972



Black to play

The position is so blocked that there isn't much for either side to do except maneuver. Black played a low-calc move and left the board:

1 ... ♘e8

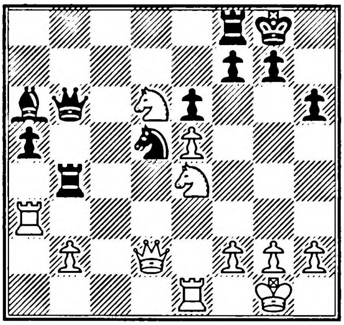
He returned a short time later to find his opponent missing. He saw there was no meaningful change in the position and assumed White had played some innocuous pass but had forgotten to punch his clock. He didn't care *which* pass.

2 ... ♖aa7!?!

Yes, Black made two moves in a row. He didn't realize his opponent had gone to the men's room without making a move. When White returned to the board he objected and, of course, 2...♖aa7 was withdrawn. White then played 2 ♗c2, Black replied 2...♖aa7 – and life went on.

But in very sharp positions, low-calc options are rare. The price of failing to look two or three moves into the future can be high.

Avrukh-Rublevsky
Rethymnon 2003



White to play

1 ♖g3

White threatens 2 ♕xh6 and 2 ♘f6+. Black's natural defense is to move the king.

1 ... ♔h8??

This move, rather than 1...♔h7, could be played on the basis of general principles. On h8 the king avoids dangers on the b1-h7 diagonal (compared with 1...♔h7 2 ♕c2). However this was a "must-calc" position.

2 ♘f6!

This wasn't hard to foresee (2...gxf6?? 3 ♕xh6 mate or 2...♘xf6 3 exf6 with a crushing threat of fxg7+). Black may also have seen that 2 ♘f6 contains minor threats such as 3 ♘de8.

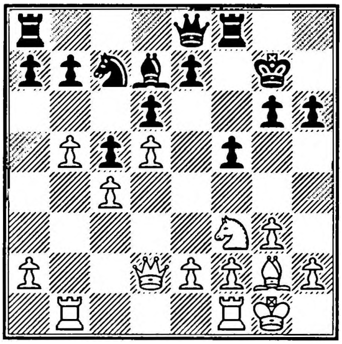
But he missed the big threat – 3 ♕xh6+! gxh6 4 ♘xf7+! ♖xf7 5 ♖g8 mate. There was no good defense and Black resigned soon after 2...♘f4 3 ♘d7! ♖d4 4 ♕xf4! ♖xf4 5 ♘xb6.

FIGHTING TEMPTATION

That game illustrates one of the dangers of failing to appreciate how much analysis is really needed. But there is another: In a position that allows you to safely play low-calc moves you can waste your time and energy analyzing a second-best move – and end up playing it.

Young, improving players are particularly vulnerable to this temptation to over-calculate. When they begin to feel confident about their visualizing skills they can be enticed into calculating several moves ahead simply because they can.

Alterman-P. Nikolic
Pula 1997



White to play

This seems like a good time for White to open lines. One attractive idea is 1 b6. But it only takes a look of two moves into the future, 1...axb6 2 ♖xb6 ♗c8, to appreciate that Black will enjoy a lot of play on the a-file, perhaps as much as White would on the b-file.

1 e4?

This is the right idea but White carries it out in a too-complicated manner. With the simple 1 ♖fe1 or 1 ♖be1 White would be able to secure an edge with 2 e4, e.g. 1...♕f7 2 e4 fxe4 3 ♖xe4 followed by doubling rooks on the e-file.

Instead he calculates a way to sacrifice the pawn temporarily and ensure its recovery.

1 ... fxe4

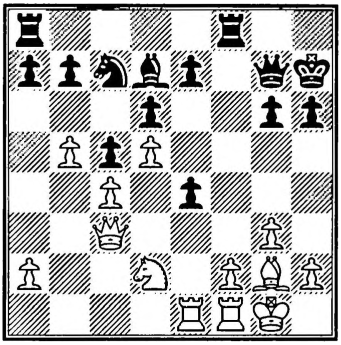
2 ♕c3+ ♔h7

3 ♘d2

Black can't hold onto the pawn (3...♗f5 4 ♘xe4). But 1 e4 actually lost time compared with 1 ♖be1 or 1 ♖fe1 and it allows Black's queen to become active.

3 ... ♕f7

4 ♖be1 ♕g7!



Black has excellent defensive chances (5 ♕xg7+ ♔xg7 6 ♖xe4 ♖ae8 or 5 ♘xe4 b6 6 a4 a6).

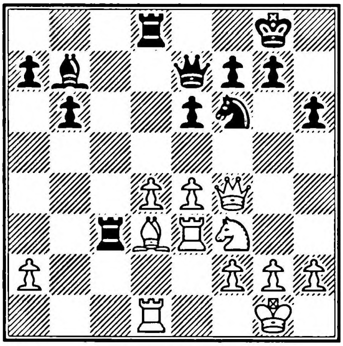
When Garry Kasparov was in his early teens, Mikhail Botvinnik warned him against seeking "complications for the sake of complications" when simple moves serve better. "You'll never become

Alekhine if the variations govern you instead of the other way around," Botvinnik said.

The mature Kasparov seemed to be echoing Botvinnik when he praised Jose Capablanca in *My Great Predecessors Part I.* Kasparov claimed Capablanca's talent was so great that "he did not need to calculate" in his match with Frank Marshall. Capablanca could beat Marshall by just playing good, but not necessarily, best moves, he argued.

But that's a vast overstatement. Like any other player, Capablanca recognized that there were bound to be positions when the variations governed him. This happens when there is a significant difference between the candidate a players wants to play, which requires considerable analysis, and the low-calc alternative.

Marshall-Capablanca
Match, fifth game 1909



White to play

Black's chief asset, his control of the c-file, gives him a slight edge.

1 ♗b1

He can meet the threat to his rook with 1...♕a3. But it doesn't take much analysis to realize that 2 ♖xc3 ♕xc3 3 ♖c1 would ease White's game. All of his weaknesses are protected and he gains control of the c-file.

1 ... g5!

There was a low-calc alternative, 1...♖dc8, that does a better job of retaining an edge than 1...♕a3. But Black was attracted to 1...g5, the most forcing move. He soon realized that he wouldn't be able to play it without performing considerable calculation. But 1...g5 also promises a much greater reward than any of the other candidates.

2 ♘xg5!

Both players understood Black would have a clear advantage in variations such as 2 ♕e5 ♘g4 or 2 ♕g3 ♖xe3 3 fxe3 ♘xe4.

2 ... ♖xe3

Now 3 fxe3 ♘h5! and 4...♕xg5 wins easily.

3 ♕xe3

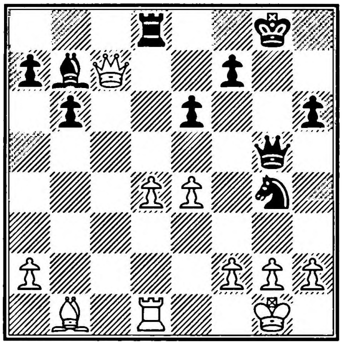
Before selecting 1...g5 Black must have seen that 3...hxg5? 4 ♕xg5+ ♔h8?? 5 ♖d3 is bad. He may have noticed that 4...♔f8 was safe enough. But he also spotted another improvement.

3 ... ♘g4!

4 ♕g3! ♕xg5

Here White played 5 h4 and lost the piece-down ending. But Black must have calculated what would happen if White had played 5 ♕c7. Let's see what he saw.

5 ♕c7



A move of the attacked bishop would allow White to regain material with 6 h3. Black had prepared an answer.

5 ... ♖c8!

6 ♕xb7 ♖c1

7 ♕b8+ ♔g7

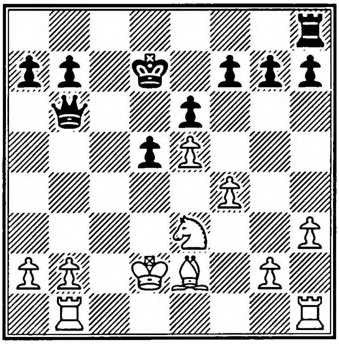
When he chose 1...g5 Black didn't have to see that 8 ♖f1 loses to 8...♘e3. (There are two other ways to win.) But he did have to see as far as 7...♔g7. Otherwise he would be just guessing that 1...g5 was good – and that's a dangerous policy if it depends on accepting a sacrifice that opens up your kingside.

The reason looking seven moves ahead made sense was that 1...g5 seemed to be a game-winning move, whereas 1...♖dc8 would only maintain the slight Black edge. Because of the nature of the position, the variations governed him.

TO FORCE OR NOT

The question of whether to force matters (1...g5!) is a common one. Two benefits of forcing moves stand out. First, they are easier to calculate than non-forcing moves. This is why players in time trouble often rely on checks and other forcing moves.

Short-Vallejo
French Team Championship 2004



Black to play

1 ... ♕b4+

2 ♔d3

Forced since 2 ♔d1? loses a piece to 2...♕d4+ and 2 ♔c2? invites 2...♖c8+.

2 ... ♕e4+

3 ♔d2

Again forced. Here Black could take the f-pawn or analyze the consequences of moves such as 3...♖c8 and 3...d4. He preferred the practical route.

3 ... ♕b4+!

4 ♔d3 ♕e4+

5 ♔d2 ♕xf4!

Having eaten up additional moves towards reaching the time control, Black avoids a draw by repetition (5...♕b4+). But he wasn't finished forcing.

6 ♖hf1 ♕b4+!

7 ♔d3 ♕e4+

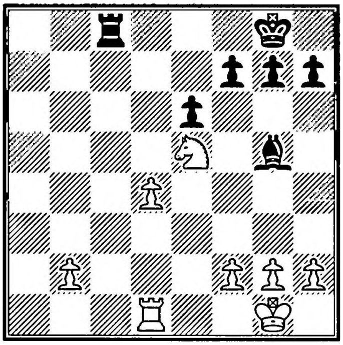
8 ♔d2 ♕b4+

9 ♔d3 ♔e7

Black was able to reach the time control and won following 10 ♖fc1 ♕e4+ 11 ♔d2 ♕xe5.

The second benefit of forcing moves is that it reduces your opponent's chances for counterplay.

Bareev-Ivanchuk
Linares 1994



Black to play

1 ... ♖b8!

This is easier to appraise than other moves including the forcing alternative 1...♖c2 2 ♖b1.

2 ♖b1

Black knew this would be played since 2 ♘c4 ♖b4 or 2 ♘d3 ♗f6 would lose the extra pawn.

2 ... ♖b3?

This seems natural. It mechanically stops the b-pawn and limits White's pieces. But it doesn't force matters, and that turns out to be important.

With 2...♖b4! 3 ♘f3 (3 ♘c6 ♖c4) ♗f6 Black should draw easily. He could even threaten to play for a win with 4...g5 and ...g4.

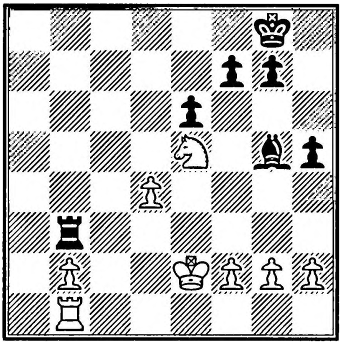
3 ♔f1

Black confessed after the game that he had simply forgotten that his opponent could bring his king to the queenside, White wrote in *Chess Herald*. This kind of oversight often occurs when your opponent has a free hand. Black had counted on a forcing move, 3 ♖a1, which threatens mate. He felt he could draw with 3...h5! 4 ♖a8+ ♚h7 5 ♘xf7 ♝f6.

3 ... h5

It's too late for 3...♜b4 because Black is doomed to a bad rook endgame after 4 ♔e2 ♜xd4 5 ♘f3 ♜d5 6 ♘xg5 ♜xg5 7 b4!.

4 ♔e2

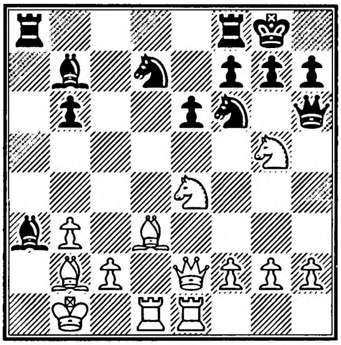


As so often happens when you make a calculating error, Black compounded it with a positional mistake, 4...h4?. White stopped the 5...h3 idea with 5 h3 and won by attacking the h-pawn while his king shepherded the b-pawn (5...♚f8 6 ♘f3 ♝f6 7 ♔d2 ♚e7 8 ♔c2 ♜b4 9 ♔c3 ♜a4 10 b4 ♜a2 11 ♖b2 ♜a3+ 13 ♔c4).

The improving player learns that forcing moves have drawbacks. When you force matters along the calculation becomes onerous. You no longer have a choice of whether or not to calculate: You must. And the price of making an oversight escalates sharply.

One common mistake is psychological. When you force matters for two or more moves in a row it can lull you into thinking that your opponent is limited to responding to your checks and threats.

Rublevsky-Belyavsky
Novosibirsk 1995



White to play

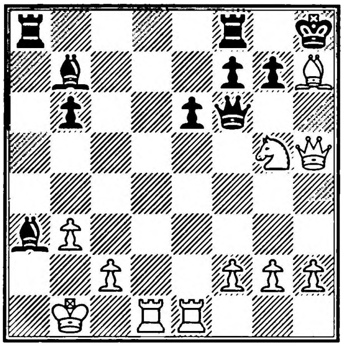
After a series of aggressive moves by White, Black offered a trade of bishops with ...♝a3, which White should avoid with 1 ♗d4. However he was carried "forward by inertia and calculated in a forcing manner," his opponent wrote.

1 ♘xf6+? ♘xf6

2 ♗xf6? ♕xf6

3 ♗xh7+ ♔h8

4 ♕h5



“Having made this move Rublevsky stood up with satisfaction, thinking that the only defense was ...♕h6,” Black wrote in *64*.

4 ... ♕b2 mate!

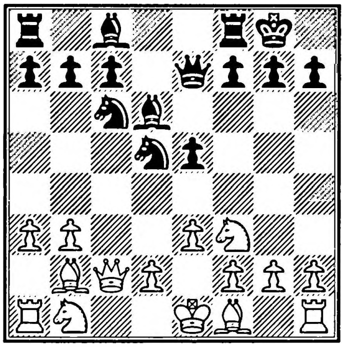
The greatest drawback to making forcing moves is that it simplifies your opponent’s task considerably. You can beat many beginners with the notorious Scholar’s Mate (1 e4 e5 2 ♗c4 ♗c5 3 ♕h5) because they won’t recognize the threat. You can defeat many novices with better-disguised threats. But eventually you will meet opponents who can recognize a forcing move as well as you can. In order to beat them you need to give them choices.

THE LOW-CALC MIDDLEGAME

There is an art to presenting your opponent with choices, and one of its virtuosos was Tigran Petrosian. He was capable of high-calc analysis when need be. But in his later years, Petrosian said, he was able to “turn on my ‘calculating apparatus’ only once or twice in the course of a game.” He reduced the analysis of many of his candidates to a minimum – and yet won because he placed his opponents in the position of having to make difficult decisions.

Petrosian-Balashov
U.S.S.R 1978

1 c4 e5 2 b3 ♘c6 3 ♗b2 ♘f6 4 e3 d5 5 cxd5 ♘xd5 6 a3 ♗d6 7 ♕c2 0-0 8 ♘f3 ♕e7



White has been able to play intuitively so far, relying on ideas that are routine with colors reversed (1 e4 c5 2 ♘f3 e6 3 d4 cxd4 4 ♘xd4 a6 5 ♘c3 b5 6 ♗d3 ♕c7 7 0-0 ♗b7).

9 ♗d3!?

White could have continued with "obvious" candidates, such as 9 d3 followed by 10 ♘bd2 and perhaps 11 ♘c4. Instead he makes a threat of ♗xh7+ and forces Black to make a decision.

9 ... ♔h8

Black had four or five reasonable candidates. He rejected two because he didn't want to weaken his kingside (9...g6?, 9...h6).

There was more to be said for 9...f5 and 9...♘f6, both of which threaten 10...e4. Black was apparently satisfied that White was doing reasonably well after 9...f5 10 ♗c4 or 9...♘f6 10 ♗b5, threatening ♗xc6. (Actually 9...f5! 10 ♗c4 ♗e6 is perfectly good for Black, e.g. 11 ♘c3 ♘xc3 12 ♕xc3 ♗xc4 13 ♕xc4+ ♔h8 and 14...e4.)

10 ♗e4!

White could have spent some time trying to determine how 10 ♗xh7 g6 11 ♗xg6 turns out. But the low-calc 10 ♗e4! is easy to analyze and has the benefit of forcing Black to decide how to defend the attacked knight.

10 ... ♘b6?

White has managed to create a situation in which Black is doing all the calculation. Black must weigh 10...♗e6 11 ♘c3 ♘xc3 12 ♕xc3 and decide whether 12...♗d7 13 ♗xc6 ♗xc6 14 ♘xe5 is bad for him. (It isn't. Black is doing well after 14...♗xg2 15 ♘c6 ♕g5 or 15 ♖g1 f6.)

Faced with other possibilities in that line such as 12 ♗xc6, instead of 12 ♕xc3, he commits a positional error.

11 ♗xc6! bxc6

12 d3

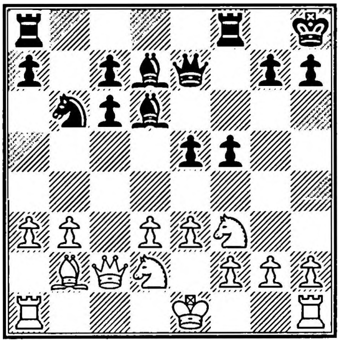
Was it intuition or a reluctance to calculate that led White to avoid 12 ♕xc6 ? Perhaps both, since Black has a choice of promising replies (12...♗a6, 12...e4).

12 ... ♗d7

13 ♘bd2

A feel for the position – rather than analysis – told White his knight might belong here, with the option of ♘c4, rather than on ♘c3.

13 ... f5



Black's move prompts White to make one of his two major decisions of the game. White can see ...♖ae8 and ...e4 on the horizon and should decide whether to allow the pawn advance.

He likely devoted some clock time to 14 0-0 ♖ae8 15 b4 e4 and to 15 d4 e4 16 ♘e5, as well as to 14 0-0 c5!?. But it is difficult to come to a definitive conclusion about any of these options without looking at least two moves further.

14 e4

Instead, White makes a positionally desirable move. He places his pawns on the squares of his missing bishop, keeps Black's knight off d5 and creates the possibility of targetting an isolated Black e-pawn after exf5. At the same time he stops the idea that would require him to calculate, ...e4.

14 ... fxe4

White didn't have to spend minutes considering what would happen after 14...f4 since he could see that d3-d4 would be a promising break when he wants it, e.g. 15 0-0 g5? 16 d4.

15 dxe4 ♖f4

White probably didn't foresee this move. But so what? You don't have to predict all of your opponent's moves, and this one only looks dangerous.

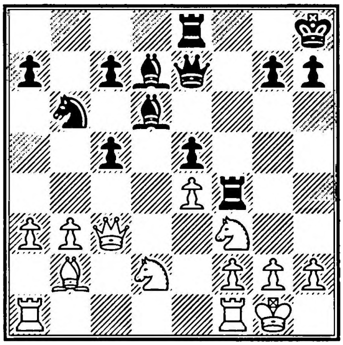
16 ♕c3

Low-calc. By threatening ♘xe5, it ties another Black piece to the defense of the e-pawn.

16 ... ♖e8

17 0-0 c5

Black frees the d7-bishop from the defense of the c-pawn.



"Attacking" moves, such as 18 a4 and 19 a5, would only force Black to reposition his worst-placed piece. White might want to develop his QR instead but it's not clear where it belongs – c1, d1 or e1. This is one of those positions in which traditional candidate cues are insufficient, and it prompted White to make his other major decision of the game.

18 ♔h1!

He envisions a secure king position and pawn structure after moving his knight and playing f2-f3. This would remove a lot of Black's tactical ideas and spare White from "If I go there, he goes there."

18 ... ♗c6

19 ♖ae1

White can't ignore threats to his e-pawn.

19 ... ♘d7

20 ♘g1!

This prepares both 21 f3 and ♘e2-g3-f5.

20 ... ♘f6

Because of White's low-calc moves Black has few forcing moves to consider.

21 f3

White has finished moving the furniture and can look forward to an excellent middlegame after, say, 21...♘d7 22 ♘e2 ♖f6 23 ♘g3 and ♘f5 and/or ♘c4-e3-g4.

21 ... ♘h5?

A blunder in a declining position. White can win material by force and it only requires looking two moves ahead to see how.

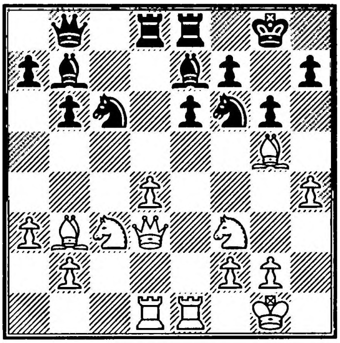
22 g4! Resigns

In view of 22...♘f6 23 ♘h3 and ♘xf4.

The opening theory ended so early that White had to make 14 decisions on his own. At two points (14 e4 and 18 ♔h1) he had to visualize a desirable future arrangement of his pawns and pieces. But at only one point in the game, at move 14, did he have to look more than two moves into the future.

The problem, of course, is recognizing when you must calculate. Relying on low-calc moves would have cost Capablanca a quick win in the example cited a few pages ago. Relying on low-calc moves can also be a fatal policy if you fail to notice the tactics available to your opponent.

Yusupov-Lobron
Nussloch 1996



Black to play

"In these kinds of positions Black must recalculate the push d4-d5 with every move," noted *New In Chess*. White's last move, ♗b3, should have signalled that the advance was "on." But rather than play 1...♘d5!, Black continued:

1 ... a6?

2 d5!

Now 2...exd5 allows 3 ♜xe7 and 4 ♝xf6. If Black had seen that when considering 1...a6 he would have been alerted to the dangers of 2 d5.

Then he would have looked further to see if there was also a refutation of 2...♘xd5 – and would have realized how strong 3 ♝xd5 exd5 4 ♘xd5 is, e.g. 4...♝xg5 5 ♜xe8+ ♜xe8 6 hxg5.

2 ... ♘a5

This seems to be a good answer but:

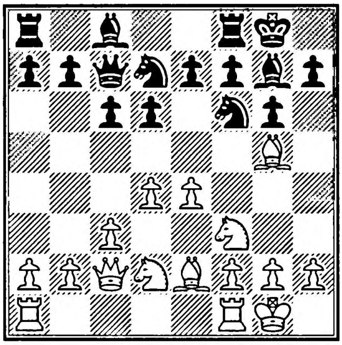
3 dxe6!

Black can resign. Taking the queen, 4 exf7+ ♔g7 5 fxe8(♛) ♛xe8, is lost after 6 ♜xd3 ♘xb3 7 ♜de3. Black tried 3...♘xb3 4 exf7+ ♔xf7 5 ♛c4+ ♔g7 but resigned soon after 6 ♘e5!.

LOW-CALC TECHNIQUE

When the pawn structure is fairly static and enemy counterplay is limited, the calculating quotient declines sharply. You can still find yourself spending – or rather, wasting – a lot of time thinking about variations that will never occur. The more efficient thinker is able to recognize how he can best budget his time.

Dlugy-Porter
Kansas 1995



Black to play

White was in an unusual case of time trouble. He was scheduled to take a plane flight that departed soon after this last round game was likely to end. The quicker he won, the better his chances of catching the plane in time. His thinking, as he outlined it in *Chess Life*, was revealing:

While White was waiting for his opponent's move he tried to figure out how to respond to 1...e5, the standard way that Black gets counterplay in such positions. A good counter-strategy by White would be to trade pawns on e5 and try to occupy d6 with a knight, that is with ♜ad1 and ♘c4-d6.

But White saw that 1...e5 2 dxe5 dxe5 3 ♜ad1 is too slow because of 3...♘c5 (4 b4 ♘e6 and ...♜d8 with equality).

1 ... e5

By the time Black played this White had decided instead on the low-calc 2 ♖ad1, which is suggested by general principles ("Develop and centralize your pieces!") and sets the stage for dxe5 and ♘c4.

2 ♖ad1

White now expected 2...♖e8 and realized that he would have two reasonable replies, 3 dxe5 and 3 ♖fe1. But there was no reason to analyze further. If Black played 2...♖e8, White could tackle the matter then. *Don't calculate what you don't have to.*

The only reply White felt he had to analyze was 2...d5, because it would fundamentally change the position. But he saw 3 ♗xf6! would allow him to create a pawn structure that should favor him.

2 ... d5?

When your opponent makes a move you've already considered to be bad, it's usually a must-calc situation. White rechecked his analysis and verified that 3 ♗xf6 ♘xf6 4 ♘xe5 favors him.

Therefore he assumed Black would meet 3 ♗xf6 with 3...♗xf6. If White then plays 4 exd5 and 5 dxe5 he isolates the-pawn and gets the favorable position he had seen while waiting for Black's move.

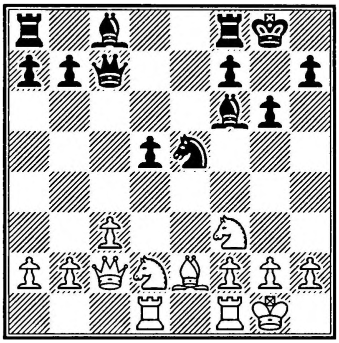
But before he went ahead and played 3 ♗xf6 on the board he noticed a trick – 3...dxe4. That works after 4 ♗xg7 because 4...exf3! threatens to fork rooks with 5...dxe2.

However, White looked further and saw that 4 ♘xe5 (or 4 ♘xe4) again favors him. That was all he needed to know.

3 ♗xf6! ♗xf6

4 exd5 cxd5

5 dxe5 ♘xe5



White looked at 6 ♘xe5 followed by 7 ♘f3 and saw there would be decisions to be made after that. For example, 6 ♘xe5 ♕xe5 7 ♘f3 ♕e7!? would pose a question of whether he should grab the d-pawn (8 ♖xd5 ♗e6) or rely on a general principle move such as 8 ♖fe1. But that's a decision he can postpone.

6 ♘xe5 ♗xe5

Now we see that White saved himself from wasting time analyzing 6...♕xe5 7 ♘f3.

7 ♘f3

An obvious candidate because it is consistent and threatens to win a pawn (8 ♖xd5) or eliminate the two bishops (8 ♘xe5).

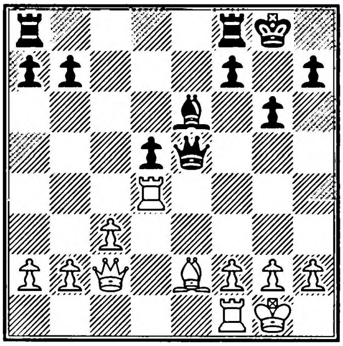
7 ... ♗e6

White didn't have to calculate here. He knew from experience that the position after 8 ♘xe5 should favor him because of the isolated Black d-pawn and bad bishop.

8 ♘xe5 ♕xe5

White's most natural plan is to pile up against d5 and try to win the d-pawn. He can begin the plan with his bishop or with the rooks. But 9 ♗f3 allows Black to force matters with 9...♗f5! and then 10 ♕b3 ♗e4.

9 ♖d4!



This has a tactical and practical point: White no longer has to analyze lines in which Black plays ...d4 and ...♗xa2.

But its chief benefit is enabling White to pursue other winning plans. He sees that Black has as many pieces as he has to contest d5 and therefore an attack on the d-pawn alone is not likely to succeed. This is the kind of general insight you come to when your opponent's clock is running and you ask yourself "How am I going to win this game?"

That insight tells him to seek a second target, on one of the two wings. For example, he can now attack h7 by means of ♖h4 and ♕d2-h6. That's a long way off but it is time to be aware of a possible mate.

9 ... ♖fd8

10 ♕d2

He doesn't have to worry about ...♗f5-e4 now because ...♗f5 is no longer forcing.

10 ... ♖d7

11 ♗f3

White is beginning to look for a moment when c3-c4 will win the d-pawn because of the pin on the d-file.

11 ... ♖ad8

12 ♖e1!

White saw that 12 ♖d1 wouldn't threaten to win the well-protected-pawn. He analyzed 12 c4? and realized that it failed to 12...dxc4. Attacking the only unprotected enemy piece with 12 ♖e1 was a natural alternative. Black's queen must retreat and choose between the kingside and queenside.

12 ... ♕c7?

Now White doesn't have to worry about how he would make progress on the queenside after 12...♕f6. His attention is directed to the kingside.

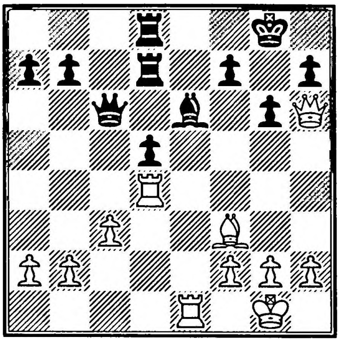
13 ♕h6

This threatens 14 ♖h4 (and, if 14...f5 or 14...f6, then 15 ♖xe6). While Black was thinking about his reply, White realized that 13...♕b6 would protect the bishop and enable Black to defend with 14 ♖h4 f6. When he looked further he saw that 14...♕xb2! was also possible, since 15 ♕xh7+ ♔f8 looks more dangerous than it is.

However, when White rechecked his analysis he saw that 13...♕b6 could be met by a forcing in-between-move, 14 ♖b4!. That would avert ...♕xb2 and win time for 15 ♖h4. This was not very deep analysis but it was all White needed.

13 ... ♕c6

White didn't pay much attention to this possibility because it just looks bad to put the queen on the same line as White's bishop. Black isn't threatening anything, so White is free to consider two tempting candidates, 14 h4 and 14 ♖h4.



It shouldn't take long to see that 14 h4 prepares two attacking plans, h4-h5xg6 as well as h4-h5 followed by ♕g5-f6 and h5-h6. For example 14...f6 15 h5 ♗f7 16 hxg6 hxg6 loses to 17 ♖h4 while 16...♗xg6 must be bad because of 17 c4!. These are the longest variations White may have considered in the game.

14 ♖h4

But he saw something better: 14 ♖h4 f6 15 ♕e3 will attack both the a-pawn and bishop and win one of them. That seemed just as favorable – and easier to analyze – than the complications of 14 h4. Besides, he could always return to the h-pawn idea later on.

14 ... f6

15 ♕e3 ♗f5!?

Back at the diagram White saw that 15...♗f7 16 ♕xa7 b6 was good for him. But after 15...♗f5 was played he had second thoughts, since 16 ♕xa7 ♗e4 seemed too strong. For example, 17 ♗xe4 dxe4

18 ♖hxe4 ♕xe4! 19 ♖xe4 ♖d1+ and mates. (He didn't look further to see 17 ♖h3!.)

16 ♖d4!?

He goes back h2-h4-h5.

16 ... a6

17 h4

White doesn't have to concern himself yet with whether Black would meet 18 h5 with ...gxh5 or ...g5. Both are likely to create major new weaknesses.

17 ... ♖d6

White quickly saw the idea behind this move: 18...♖e6 would allow Black to ease the pressure a bit. But 17...♖d6 has a down-side since it leaves the second rank slightly vulnerable.

18 ♕d2

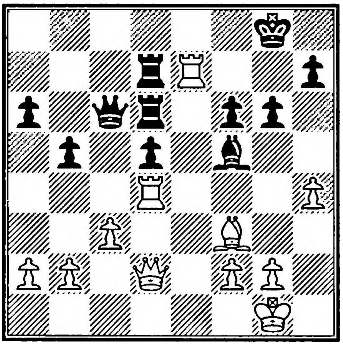
That weakness couldn't be exploited by 18 ♕e7 ♖6d7. But now White prepares both 19 ♖e7 and 19 c4.

18 ... b5

This ends the c3-c4 idea. White turned naturally to 19 ♖e7 with its mate threat of ♕h6. He saw a possible 19...♖e6 and asked himself, "Then what?"

He answered himself by spotting the flaw, 20 ♖xd5! (20...♖xd5 21 ♗xd5 or 20...♖xe7 21 ♖xd8+ and ♗xc6). There was nothing else that needed to be analyzed.

19 ♖e7 ♖8d7



White has to calculate 20 ♖xd7 but only three or four moves into the future. His main concern was verifying that there was no faster win (20 ♖e8+? ♔f7 or 20 ♗xd5+? ♖xd5).

20 ♖xd7 ♕xd7

21 ♖xd5

When he played 20 ♖xd7 White was thinking ahead to the possible bishop ending. He determined it should be an easy win because Black's queenside pawns could be fixed on light squares and White's king can get to the center faster than Black's. As it turned out, the endgame is a routine win – 21...♖xd5 22 ♕xd5+ ♕e6 23 b4! ♔f8 24 ♕xe6 ♗xe6 25 a3 and ♔f1-e2-e3-d4.

And White caught his plane.

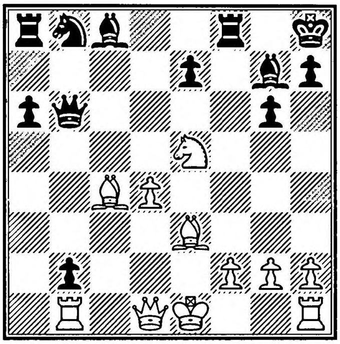
5: Trees, Checkers and Worst Cases

In theory, there are three neatly separated steps of move selection – you find a candidate, you analyze the "if I go there" consequences of it and you evaluate the bottom line. In practice, a player often performs all three tasks so quickly that it seems to him to be a single act.

For the young and impulsive it often is. Mikhail Botvinnik warned his prize student, Garry Kasparov, about this. "I had to insist that he think first about his move before making it on the board," he recalled. "I often told him there was a danger he would become a new Larsen or Taimanov" – meaning a strong player who too often chooses the intuitive move without confirming its value by analysis and evaluation.

Another of Botvinnik's students underlined the value of confirmation:

Karpov-Kamsky
World Championship (FIDE)
match, ninth game
1996



White to play

White spent 20 minutes on his "not so difficult" move, as he put it in his book on the match. He acknowledged that some other players would immediately find the right move. But he felt he had to look five or six moves further to verify its strength – and that "is the important difference!"

A player of a quite different style, Frank Marshall, made a similar point nearly a century before. "I saw the move in a flash," he wrote about the ♘e5 that began one of his most famous combinations, against Amos Burn at Ostend 1905. "But its sequel had to be calculated with great exactitude."

1 ♕d2

The candidate that occurs first to most players is 1 ♘f7+. But it can be dismissed as soon as you analyze 1...♖xf7 2 ♗xf7 and see that 2...♗f5 regains the Exchange safely. It doesn't take much evaluation to realize that White deserves better than that. He realized that 1 ♕d2 would be much stronger than 1 ♘f7+ if he could continue with ♖xb2.

1 ... ♘d7

2 ♖xb2

While weighing 1 ♕d2 White saw this far and concluded that if he has time to play ♘f7+ or f2-f4, he would enjoy good winning chances. That meant he had to find an answer to 2...♕c7, which threatens 3...♘xe5 and 4...♕xc4. But he found 3 ♘f7+ ♔g8 4 ♖c2!, which gives White a strong initiative.

2 ... ♘xe5!

Most of White's 20-minute investment in 1 ♕d2 was spent on seeing what can happen after this. The routine 3 dxe5 isn't good enough because Black regains the pawn with 3...♕c7!.

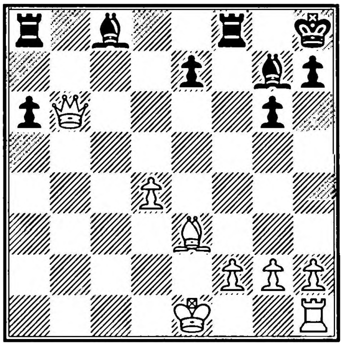
3 ♖xb6!

If White hadn't been able to foresee favorable consequences of this move, he might have given up on 1 ♕d2 and turned his attention to a second (and inferior) candidate.

3 ... ♘xc4

4 ♕b4 ♘xb6

5 ♕xb6



The forcing moves are over and it's time to evaluate. White felt his material edge should prevail and, in the game, he was proven right.

THE DREADED TREE

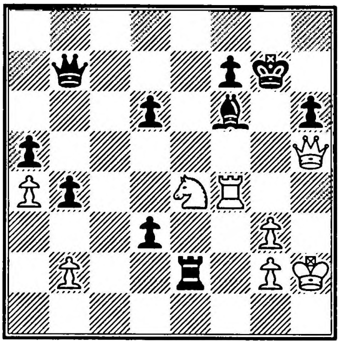
There is a branch of statistics called decision theory which tries to determine the best possible outcome of the choices we make in life. Perhaps its most useful tool is called a "decision tree," a schematic outline of how picking option A over B will result in different consequences. Thanks to Alexander Kotov this entered the language of chess as "the tree of variations."

The trunk of this tree is the candidate you are considering. Each of the branches that extend out represent a different reply by your opponent. Each branch may diverge into smaller branches based on how many choices you have in response at move two. Then each of the branches can sprout branches depending on how many replies your opponent has to your second move, and so on.

This sounds enormously complicated. In a typical position you would be faced by a forest of giant redwoods, each with dozens of branches representing all the legal moves. In practice, the tree can be fairly short and scrawny because the only branches that matter consist of reasonable moves, that is, candidates.

In the last example, the 1 ♕d2 tree was relatively straight since only 1...♘d7 disturbed White's plans. The smaller branches begun by 2...♕c7 (instead of 2...♘xe5) and 3 dxe5 (instead of 3 ♖xb6) were short. Only the branch leading to 5 ♕xb6 had to be scrutinized in some detail. Let's consider another example.

Pavlovic-Fedorov
Plovdiv 2003



Black to play

White has just advanced his knight to e4 where it threatens a capture on f6. He also set a trap (1...♖xe4 2 ♕g4+ and 3 ♖xe4). Black examined his forcing candidates and chose:

1 ... ♗g5!

This threatens the crushing 2...♗xf4 or 2...♖xe4. It might seem Black had to examine several branches of the 1...♗g5 tree. But a brief inspection reveals there are only a few, and all but one is short.

The shortest are the various knight moves, starting with 2 ♘xg5. They allow 2...♕xg2 mate. There can be no reason to look further.

There are also branches stemming from routine rook moves. But these, too, are short because Black can reply by safely taking on e4. That leaves:

2 ♖f5

This branch can separate further since Black can reply 2...♕xe4 or 2...♖xe4 as well as a less forcing response like 2...f6. However, we can prune the tree immediately – since 2...♕xe4?? permits White at least a perpetual check after 3 ♕xf7+.

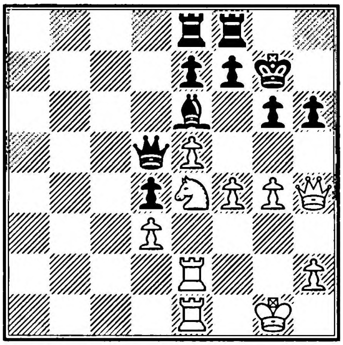
Black should put 2...f6 aside until he considers the other branch, 2...♖xe4, which seems to provide a winning material edge. The only concern Black should have is whether 2...♖xe4 3 ♖xg5+ leads to a perpetual check or some other nasty result. It doesn't (3...hxg5 4 ♕xg5+ ♔f8 5 ♕d8+ ♖e8 6 ♕xd6+ ♔g8 and the king escapes).

This is sufficiently clear-cut and once Black gets to the end of that last branch he doesn't have to examine what happens on the other branch, 2...f6. In fact, White resigned after 1...♗g5.

The length and number of tree branches determines how difficult it is to analyze a candidate. Usually you can calculate only about as far as there are forcing moves. That's why the longest branches in the last example ended at move six. White was out of ammunition after 6 ♕xd6+.

The analysis becomes much more complex when you are trying to choose between two or more candidates. Each one represents a separate tree.

Delgado-Zambrana
Santa Clara 2004



White to play

White's pieces are primed for a knockout but routine moves such as 1 ♘g3 (and 2 f5) fails to 1...♕f3. Instead, he looks at f4-f5 and ♘f6 as sacrifices.

The 1 ♘f6 tree looks promising after 1...exf6 2 exf6+ ♔h7 3 f5 since 3...gxf5 allows 4 g5!.

But as White checks out the other branches he would see 3...♗d7! is much stronger (4 g5 h5). White can backtrack and consider his other options at move three but none prove effective.

1 f5! gxf5

The 1 f5 tree is a bit more elaborate but Black had no choice since a bishop move would have allowed 2 f6+!.

2 ♘f6??

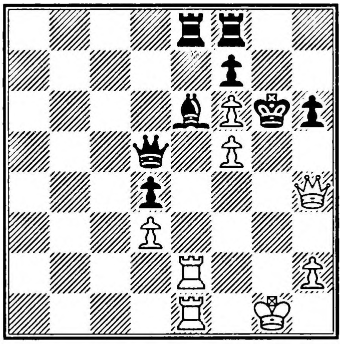
This looks more convincing than 2 gxf5 followed by ♘f6. However:

2 ... exf6

3 exf6+ ♔g6!

White underestimated this move, which is vastly superior to 3...♔g8 4 ♕xh6 or 3...♔h7 4 g5!.

4 gxf5+



4 ... ♔h7!

White resigned because of 5...♖g8+!. He made two errors – missing a win of his own and then allowing a crushing counter-attack. After the superior 2 gxf5! ♗xf5 3 ♘f6! White wins, e.g. 3...exf6 4 exf6+ and ♖xe8 or 3...♕-moves 4 ♖g2+ ♗g6 5 ♘xe8+ ♖xe8 6 e6.

Many if not most players can train themselves to visualize trees this size and be able to work their way through them. A worthwhile exercise is to play over an annotated game, either on a board or on a computer screen. Stop at each point where there is a short comment, one that gives an alternative variation that runs one or two moves into the future. For example, "Not 1...♗xd3 because of 2 ♖f8+!, which wins for White."

Once you visualize that note to its end, continue playing through the game until you reach the next short note and repeat the process. When you've gone through the entire game and exhausted all the short notes, go over the game again and try to visualize slightly longer notes, the three- and four-movers. Eventually work yourself up to the five-movers.

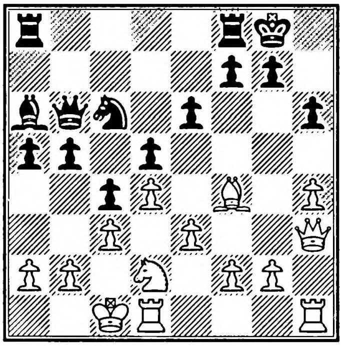
But ignore the really long notes (unless you're a masochist). Even if you could somehow train yourself to visualize ten moves ahead, it won't help much at the board because the occasions are very rare when you'll have to calculate that far. What matters most is being able to calculate the short branches – and to recognize which one is the worst-case scenario.

WORST CASE

White turned a win into a loss in the last example because he violated a basic rule of analysis. When calculating the consequences of 2 ♘f6 he didn't foresee his opponent's best replies (3...♔g6! and 4...♔h7!).

This is another fundamental difference between chess and life. In making other decisions we are often guided by the best-case scenario: "Of course, I understand that winning the lottery is a long shot but imagine if I win?" Or, "I know that most new businesses fail within a year but I believe mine will succeed."

Novices like to set traps based on best cases.



White to play

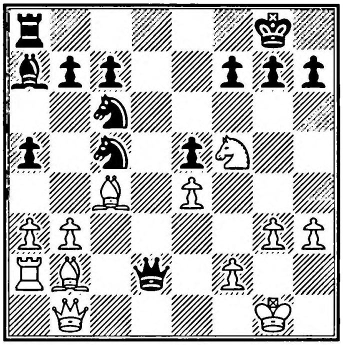
They may play 1 ♗g5 because 1...hxg5?? can be answered by 2 hxg5 followed by mate on the h-file (2...f6 3 g6).

But 1 ♗g5 does nothing more than put en prise a piece that can't be taken. It advances no plan, secures no advantage. It is based entirely on wishful thinking.

Instead, you should be governed by the worst-case scenario. You have to make sure you've seen the most dangerous enemy reply, as White did on p.85. He couldn't play 1 ♕d2 just because the 2...♕f6 3 f4 branch looked good. Or because he liked the looks of 2...♕c7 3 ♘f7+. He had to find the answer to 2...♘xe5 as well.

Yet sometimes you will see grandmasters become seduced by candidates that promise wonderful rewards.

M. Gurevich-Rublevsky
French Team Championship 2004



Black to play

Black is a pawn ahead but must meet the threat of a discovered attack on his queen such as ♗xe5. He would have good chances after either the quiet 1...♕d7 or the tactical 1...♖d8 (so that 2 ♗xe5 can be answered by 2...♕d1+).

But he wanted to do something more active and was tempted by the prospect of threats to f2. For example, 1...♘xe4 opens up the bishop's diagonal and would win after 2 ♕xe4?? ♕xf2+ and 3...♕g1 mate. However, 2 ♗xe5! is messy.

Is there another candidate that better uses the ...♕xf2+ idea?

1 ... ♘xb3??

This seems to do the job since 2 ♗xe5 allows a strong 2...♕c1+! 2 ♕xc1 ♘xc1.

On 2 ♗xb3 Black wins with 2...♕xf2+ followed 3...♕f3+ and 4...♕xb3.

2 ♗a1!

It doesn't matter how many tree branches turn out to be in your favor as long as there is one that doesn't. Now 2...♕c1+ 3 ♕xc1 ♘xc1 4 ♖c2! traps the knight.

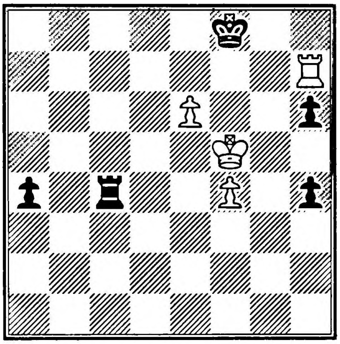
Black actually played 2...♗xf2+ 3 ♔g2 ♕d7 but resigned a few moves after 4 ♖xf2.

SLOPPY OPTIMISM

During the search for candidates you can and should be bold and upbeat. Your imagination and fantasy is often rewarded by finding a remarkable resource. When Bobby Fischer was asked why he seemed to be an optimist he reputedly replied, "Because chess makes me one."

But analysis requires a more skeptical mindset. You have to be suspicious about a candidate that looks strong. Most of all: Don't kid yourself.

Karpov-Deep Thought
Exhibition game 1990



Black to play

White has just played 1 ♖h7.

1 ... h5??

We can't accuse a machine of wishful thinking. But there's no doubt Black saw a best-case scenario (2 ♖xh5?? ♖c5+! and wins) and didn't properly evaluate the worst case.

2 ♔e5!

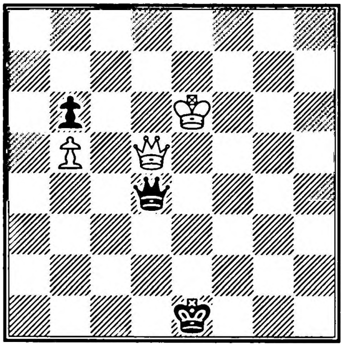
The White pawns or king will advance decisively (2...♖c5+ 3 ♔f6, threatening 4 ♖h8 mate or 4 e7+ and queens).

The game went 2...h3 3 f5 ♔g8 4 ♖xh5 a3 5 ♖xh3 a2 6 ♖a3 ♖c5+ 7 ♔f6 Resigns. No better was 5...♖a4 6 ♖g3+ ♔h7 7 e7 or 6...♔f8 7 f6.

But none of this was necessary. If Black had performed the kind of rigorous analysis of its great successor, Deep Blue, it would have found 1...h3! 2 ♖xh6 a3 3 ♖xh3 ♖a4. That draws because White must play without the use of his rook after 4 ♖h1 a2 5 ♖a1 ♔e7.

When analyzing a few moves ahead, even an endgame like that, you should strive to find the worst case *every time* your opponent has a choice. It won't matter if you found the worst case at move three, four and five if you missed it at move two.

Morozevich-Korotylev
Russian Championship 2004



Black to play

White has just played his queen from c6 to d5. It would take Black just seconds to understand that 1...♕xd5+ is a lost king-and-pawn ending. His chief candidates include 1...♕f2 and 1...♕g4+. White may eventually capture the pawn but his winning chances are unclear in the resulting ♕+b-pawn-vs.-♕ ending.

1	**...**	**♕c5??**
2	**♕xc5**	**bxc5**

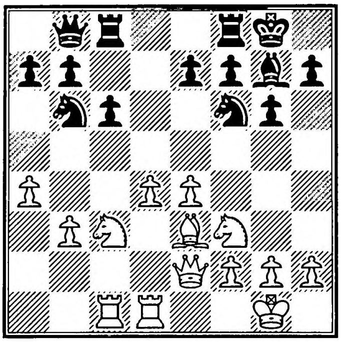
Black must have counted on the pawn race. After 3 b6 c4 4 b7 c3 5 b8(♕) c2 he's reached queen versus bishop pawn, which seems to be a book draw. What he overlooked was a worst case at move three.

3	**♔d5!**	**Resigns**

FORCING FIRST

Generally you cannot calculate much in a quiet position because there are simply too many replies available to your opponent at every turn. The players who try to analyze more than a move or so ahead are playing a guessing game about their opponent's intentions. Only in extraordinary situations do they guess right.

Larsen-Saidy
San Antonio 1972



White to play

"In this quiet position I made my longest calculation of the whole tournament!" White wrote. "Fourteen moves deep but not difficult at all."

1 h3

Yes, this move can be analyzed 14 moves ahead – but only if Black falls into the trap it sets.

1 ... ♖fd8?

This is the only branch of the 1 h3 tree that White could calculate. After any other move he would have been on his own now.

2 a5 ♘bd7

3 e5! ♘d5

The main point of 1 h3 was to prevent 3...♘g4.

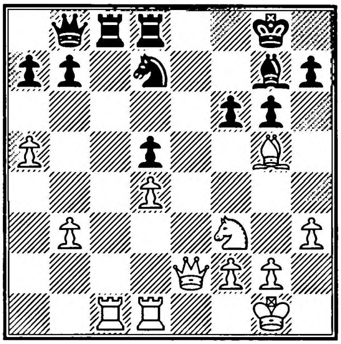
4 ♘xd5 cxd5

5 ♗g5!

White's trap works because the unfortunate rook at d8 prevents Black from playing 5...e6. Since 5...♖e8 permits 6 e6, White could count on Black playing 5...f6.

5 ... f6

6 exf6 exf6



7 ♗f4!

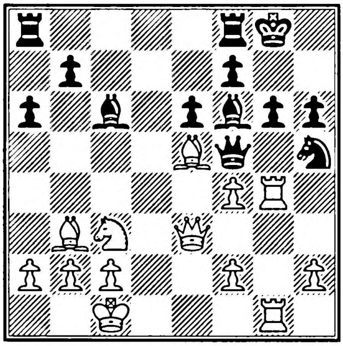
White saw this far and much further when he planned 1 h3. Black has little choice here (7...♕a8? 8 ♖xc8 ♖xc8 9 ♕e6+ or 8...♕xc8 9 ♖c1) and he didn't have much either at later stages (7...♕xf4 8 ♖xc8 ♖xc8 9 ♕e6+ ♔h8 10 ♕xd7 ♕c7 11 ♕xd5 ♖d8 12 ♕b5 a6 13 ♕a4 ♗f8 14 d5 with a winning position).

But this is an exceptional situation. White guessed that Black would develop his last piece with the natural 1...♖fd8. Once Black missed his last chance to escape the trap (2...♘a8!) he was vulnerable to the forcing moves that made analysis of a 14-move tree possible.

Calculation runs on forcing moves. That's why you should start your analysis by looking for forcing replies by your opponent. If there are none, you may be able to stop the analysis there and evaluate the results.

Too often a player will dismiss a forcing reply because it is positionally dubious and therefore must be bad. But then he is stopping the analysis too early.

Morozevich-Cvitan
Bled 2002



Black to play

White's last move, ♕e2-e3, seems purely defensive.

1 ... ♖ad8??

A general principle move. Black is "betrayed by his sense of danger," White wrote.

2 ♗xf6!

Because this trades off White's best minor piece Black apparently didn't consider it.

2 ... ♕xf6

But it is the tactics of 2 ♗xf6 that matter, e.g. 2...♘xf6 3 ♖xg6+! fxg6 4 ♗xe6+ and wins. Black also loses after 3...♕xg6 4 ♖xg6+ fxg6 5 f5! followed by ♕xh6 or ♗xe6+. This idea of f4-f5 and ♕xh6 was a key reason for White choosing ♕e3.

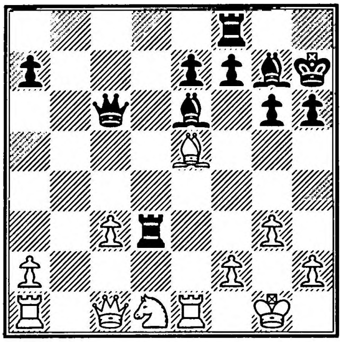
3 f5!

Here is that ♕xh6 idea again. White wins after 3...♕xf5 4 ♕xh6 followed by ♖xg6+ or ♖g5xh5. Black played 3...g5 4 h4 exf5 and resigned soon after 5 hxg5.

He could have avoided all danger with 1...♔h7! but failed to take 1...♖ad8 2 ♗xf6 seriously.

A common error occurs when the candidate you're considering has some force of its own and therefore seems to dictate matters. But some moves are more forceful than others. Candidates that give check, for example, can't be ignored. But captures and threats often can be. Misjudging the force of your candidate can lead to embarrassing results.

Stahlberg-Averbakh
Beverwijk 1963



White to play

1 ♗xg7

Black saw this as a mere piece capture and therefore moderately forcing. He decided to interpolate a greater threat.

1 ... ♗h3??

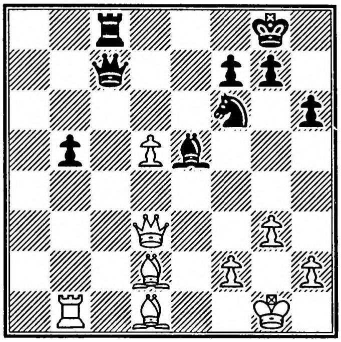
This threatens mate. What could be more forcing?

2 ♕xh6+ Resigns

Black didn't appreciate that White was threatening his own mate.

Here's a more recent example.

J. Polgar-Aronian
Hoogeveen 2003



Black to play

Black should seek counterplay with 1...♖a8 (2 ♖xb5 ♖a1 or 2 ♕xb5 ♖a2). Instead, he sees a forcing move that would preserve the b-pawn and offer a trade into an endgame.

1 ... ♕c4

The ending would be fine. But White recognizes 2...♕xd3 isn't an absolutely forcing threat.

2 ♖c1!

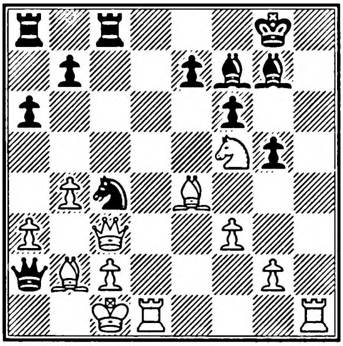
Black lost after 2...♕xc1+ 3 ♗xc1. What he overlooked was that 2...♕xd3 allows 3 ♖xc8+ and ♗c2, e.g. 3...♔h7 4 ♗c2 or 3...♘e8 4 ♗c2 ♕xd2 5 ♖xe8 mate.

"COMPLETE" OVERSIGHTS

A master annotating a game will often claim that he "completely overlooked" his opponent's last move. This sounds as if he didn't realize the move was legal. Or that it is one of the very few replies he didn't analyze.

But that's not the case at all. What he means is that when he chose his own previous move he scanned the board for the few replies likely to be dangerous. His mistake was failing to pay serious attention to the one his opponent selected, which turned out to be good (like 2 ♖c1! in the last diagram). Another case:

Akopian-Kramnik
Wijk aan Zee 2004



Black to play

Black can liquidate material with 1...♕xb2+ 2 ♕xb2 ♘xb2. But Black's second move isn't absolutely forcing. Instead of recapturing (3 ♔xb2), White can get the upper hand with his own forcing idea, 3 ♘xe7+! and 4 ♘xc8.

1 ... ♖c7??

This averts ♘xe7+ but it overlooks:

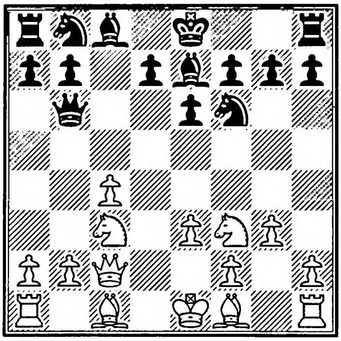
2 ♖h7!

This isn't a check or capture and that's why it slipped past Black's radar screen. If he had considered it at all, he would have immediately spotted the tactics: 3 ♖xg7+ is threatened and 2...♔xh7 would allow 3 ♘xe7+ and ♖h1+ mating.

After 2 ♖h7 there was no escape (2...♗f8 3 ♖dh1). Black played 2...♕xb2+ 3 ♕xb2 ♘xb2 4 ♖xg7+ ♔f8 and resigned after 5 ♖h1.

Novices often "completely overlook" sharp and forcing moves because they aren't experienced in handling tactics. But grandmasters can also be surprised by their opponent's replies – even several moves in a row. The difference is that what GMs overlook are generally non-forcing moves and the consequences of missing them is minor.

Bareev-Akopian
Wijk aan Zee 2004



White to play

1 g4

The routine move here is 1 ♗g2. This was the first in a series of surprises.

1 ... d6

Rather than take the pawn (1...♘xg4 2 ♖g1) Black creates a good retreat square for the knight.

2 ♖g1

Here or on the next move or two White might have been expected to continue with the consistent g4-g5.

2 ... ♘c6

3 a3

Another surprise. Black didn't realize until now that White intended to expand on both the queenside and kingside.

3 ... ♘d7

Retreats of pieces that aren't attacked are among the moves most commonly overlooked. Black anticipates g4-g5 before it's played.

4 b4 ♘de5

Black wants to trade off White's f3-knight so he can occupy d4 or e5 later on. He expected White to reply 5 ♘xe5 and then perhaps 6 ♗e2.

5 ♘d2

White wants to avoid trading knights and drive them back later on with f2-f4 and b4-b5.

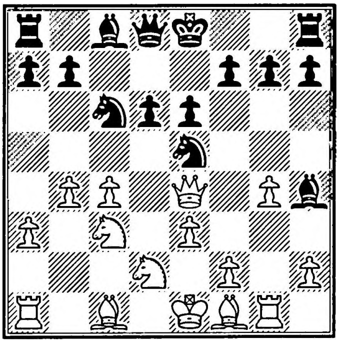
5 ... ♗h4

This tries to exploit White's last move but is still somewhat unexpected.

6 ♕e4

Both White and Black considered 6 ♔e2, to get out of the pin. This move threatens to trap the bishop with 7 g5.

6 ... ♕d8!

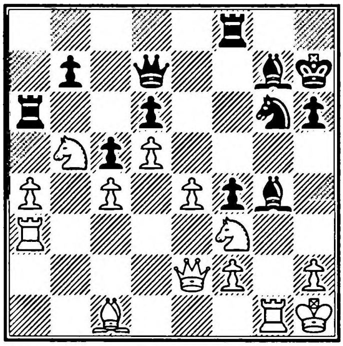


White admitted after the game that this retreat never occurred to him. Black confessed he had been even more bewildered. “He couldn’t guess a single move of mine,” White wrote in *64*. Yet even though they kept being surprised by each other’s next move, the position remained fairly balanced. This is because the moves they played, while somewhat committing, were not “loud.”

The basic guideline is: You can afford to overlook most quiet replies because they’re quiet. You must examine all forcing moves because they’re forcing.

A key word here is “examine” because many loud moves require only a fairly brief amount of scrutiny. Masters often rely on their intuition to decide when to halt their analysis of a loud, anti-positional reply. If that reply doesn’t win a piece or threaten the king, they may not take it seriously.

Kramnik-Kasparov
Novgorod 1997



Black to play

Black thought about 50 minutes to decide among candidates such as 1...♔h8 and 1...♘h4. When a world champion takes that much time, his opponent must have looked at every one of the potential candidates, right?

1 ... ♗xf3+?

“Honestly, this was completely unexpected for me. I didn’t even consider it,” White wrote in his game collection. “And I was right.”

What he meant is that he knew he wouldn’t suffer major material loss after 1...♗xf3+ because all his pieces defend one another. The only benefit of the move to Black is creating tactical chances of winning the c-pawn. White senses that he would stand well because 1...♗xf3+ was so positionally dubious.

Compare this with 2 ♗xf6! on p.93. That was also a positionally suspect move that the opponent didn’t take seriously. But it was a winning move because of its tactical points.

2 ♕xf3 ♘e5

3 ♕h5 ♕f7

White would win after 3...♘xc4 4 ♕g6+ ♔g8 5 ♖h3!, which threatens ♖xh6!.

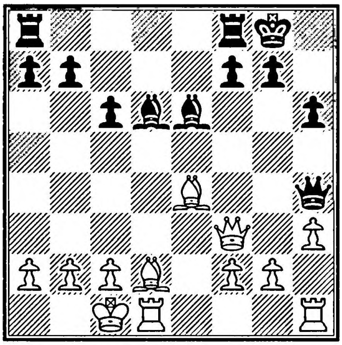
4 ♕h3!

White’s intuition has proven correct. He didn’t have to analyze

1...♗xf3+ beyond seeing that his queen would have a good escape square after 2 ♕xf3 ♘e5. White's positional advantages may not seem like much but they triumphed soon after 4...♘xc4 5 ♖f3 ♗e5 6 ♘c7 and ♘e6 (since 6...♕xc7 allows 7 ♕xh6+! ♔xh6 8 ♖h3 mate).

Intuition is wonderful – if you have it. Most non-masters don't. This means they have to look a bit further to make sure that a positionally suspect reply isn't dangerous. They have to search for forcing moves higher up a tree that can transform a single suspect move into an initiative.

Naiditsch-Bologan
Dortmund 2003



White to play

Black's queen is actively placed but White was reluctant to create weaknesses in his own camp (1 g3) to kick it back.

1 ♔b1? f5!

White must have dismissed this because it is positionally dubious ...

2 ♗d3

...or because he didn't see that 2 ♗xc6 bxc6 3 ♕xc6 is refuted by 2...♕c4!.

2 ... ♗d5

3 ♕e2 ♖ae8

4 ♕f1 ♗c5

5 f3

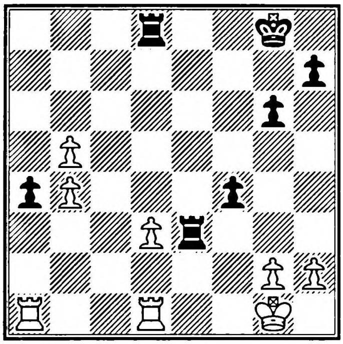
White has paid a severe penalty in piece play for misjudging 1...f5. With routine moves Black expanded his edge (5...b5 6 ♖e1 ♖d8 7 ♗c3 a5).

CHECKERS

Because our analysis depends so much on forcing moves, we are vulnerable to what is called checkers (or draughts) calculation. This occurs when we assume that our opponent will capture material whenever he can. But in chess, unlike checkers, capturing is not compulsory. Black didn't have to retake on f5 in the diagram on p.88 but won instead with 4...♔h7.

Here's another example.

Macieja-Sadvakasov
Curacao 2003



Black to play

White may have assumed that Black would try to swap down to a draw with 1...♖dxd3 2 ♖xd3 ♖xd3. For example, 3 ♖xa4 ♖d5 4 b6 ♖b5 or 4 ♖a8+ ♔g7 5 ♖b8 ♖d4.

1 ... ♖e2!

A clever move, especially in White's time trouble. Black threatens to win by doubling rooks on the seventh rank.

2 b6!

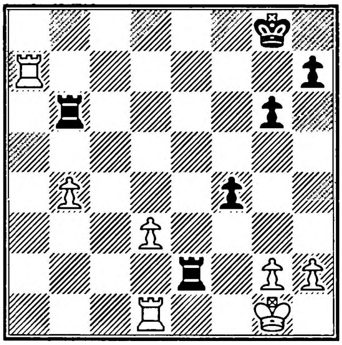
Black doesn't have time for ...♖c8-c2 because of 3 b7.

2 ... ♖b8

3 ♖xa4 ♖xb6

White could now reach a draw after 4 b5 ♖xb5 5 ♖xf4, e.g. 5...♖bb2 6 ♖g4.

4 ♖a7??



White counts on 4...♖xb4 5 ♖c1 with a mating threat of 6 ♖c8+.

4 ... ♖c6!

But again Black doesn't have to capture. Doubling rooks will win (although the clock ended the game with 5 b5 ♖cc2 6 ♖a8+ ♔g7 White forfeits).

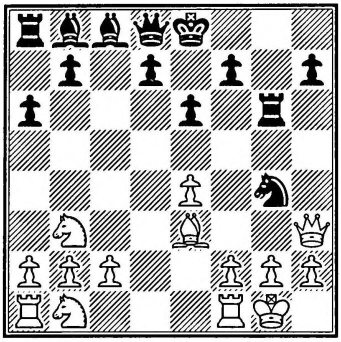
WHEN TO STOP

Once you've reached the end of a tree you can evaluate the positions on the branches. But how do you know when it's the end? After two moves? After five?

The *minimum number* usually depends on how far into the future one player can continue to make forcing moves. In sharp positions in which your opponent is doing the threatening, you should continue looking until his moves have run out of force.

Kulaots-Chuchelov

Silivri 2003



White to play

Black has just played his bishop from a7 to b8 and is threatening to take on h2, possibly followed by ...♖h6. White must look at the two blocking moves, 1 f4 and 1 g3.

No one should enjoy playing 1 g3 because 1...♘xe3 2 fxe3 ♕g5 leaves White's pawn structure in tatters and his queen out of play. But there are no loud moves for Black after 3 ♖f3, so 1 g3 seems to be at least playable.

1 f4

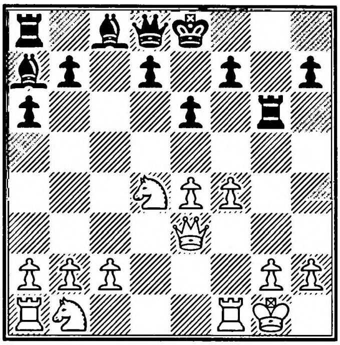
This move, on the other hand, keeps the pawn structure pristine and allows White's queen to remain part of the action. However, there is a gaping series of dark squares that now lead to his king.

1 ... ♘xe3

2 ♕xe3 ♗a7

3 ♘d4

White must have looked this far when he played 1 f4?. The most forcing move, 3...♗xd4, runs out of steam after 4 ♕xd4, and he can feel somewhat confident about surviving 3...♕b6 with 4 c3 ♕xb2 5 ♘d2.



3 ... e5!

White didn't give this enough attention. It seems to fail because of:

4 fxe5

However Black has one more forcing move.

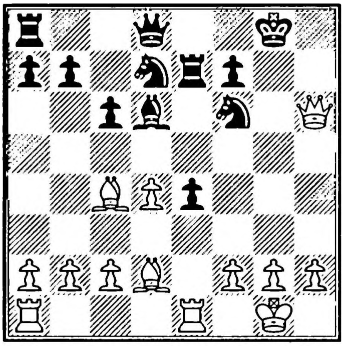
4 ... ♕g5!

Black would win a piece and the game after 5 ♕xg5 ♗xd4+. White tried 5 ♔f2 instead (hoping for 5...♕xg2+ 6 ♔e1). That's bad enough, but after 5...d6! White resigned since he loses material following 6...dxe5 (or more after 6 exd6 ♖f6+).

But bear in mind we are talking about a minimum number of moves to look ahead. This guideline can prove too conservative when there is a strong, quiet move available to one player or the other after the forcing moves are exhausted. If you have the clock time to spend, you should you analyze the position until you run out of forcing moves – and then look *one move further.*

The one-move-further you are looking for may be an enemy move or one of your own.

Korchnoi-Dreev
Brno 1992



White to play

White has just checked on g6 and h6 and sees that Black cannot avoid a perpetual check. For example, 1 ♕g6+ ♔f8 2 ♕h6+ ♔e8? loses a knight (3 ♕h8+ ♘f8 4 ♕xf6) and 1...♔h8 2 ♕h6+ ♘h7? hangs the bishop.

White looks for more than a draw. But 1 ♗xf7+? ♖xf7 fails and 1 ♗g5 can be safely answered by 1...♕f8!. Another candidate is 1 ♖e3 with the idea of 2 ♖h3 and 3 ♕h8 mate. But it is only semi-forcing because White is two moves away from inflicting damage, and that's too far (1...♕f8!).

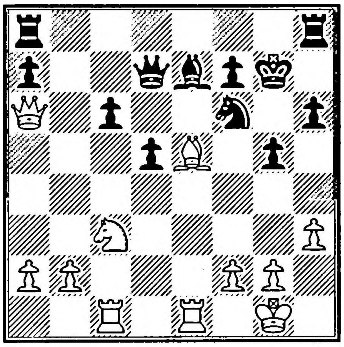
The only remaining move of any force was 1 ♗b4, which seemed to lose a piece for nothing.

1 ♕g5+? Draw

Short of time, White missed a win because he stopped too early: 1 ♗b4! ♗xb4 and now 2 ♖e3! threatens both 3 ♖h3 and 3 ♖g3+. The ♖e3 idea was too slow to be White's first move because the Black bishop covered g3. But it was perfect in the role of the one-move-further.

Even a fairly quiet move, such as a retreat of a well-placed piece, can qualify as a worthy one-move-further when your opponent is under a lot of pressure.

Kobalia-Ghaem Maghami
Stepanakert 2004



White to play

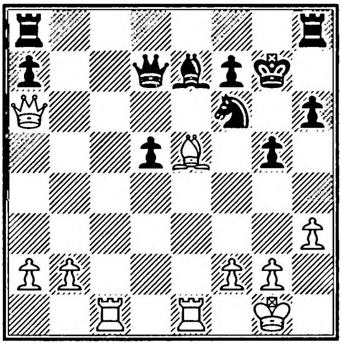
Black had just moved his king from f8, defending against tricks involving ♗xf6 or ♘xd5. White didn't have to analyze much here because 1 ♘e2 (followed by ♘g3-h5+) is a good low-calc candidate.

1 ♘xd5!

But White didn't want to give up on the ♘xd5/♗xf6 idea. By analyzing a difficult tree – and not stopping at two early points – he guaranteed the win of at least two pawns.

1 ... cxd5

When he analyzed 1 ♘xd5 cxd5 White might have been discouraged to see that the forcing 2 ♖c7 allows Black to put up a solid defense with 2...♕d8 (3 ♕b7 ♖b8! 4 ♕xa7 ♖a8 5 ♕b7 ♖b8 is a perpetual attack on the queen).



2 ♖c6!

But he found this, which is less forcing than 2 ♖c7 but stronger.

2 ... ♕d8

White might also have abandoned his analysis of 1 ♘xd5 when he found this worst-case reply (e.g. 3 ♗c7 ♕d7). But Black's defenses are stretched quite a bit and that told White this was a good time to look one move further.

3 ♗d4!

The point is 4 ♖xe7 and 5 ♗xf6+. This is a tactical idea that occurred to White in an earlier branch (1...♕xd5 2 ♖xc6 ♕d8 3 ♗c3! and 4 ♖xe7).

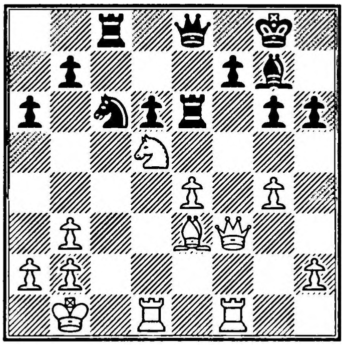
To avoid a mating attack (3...♖e8 4 ♖xe7 ♖xe7 5 ♖xf6! ♔g8 6 ♖xh6), Black accepted a bad ending (3...♖c8 4 ♖xc8 ♕xc8 5 ♕xc8 ♖xc8 6 ♖xe7) and eventually lost.

INTUITION, AGAIN

Perhaps the most valuable tool in deciding when to cut off analysis in relatively quiet positions is – once again – a kind of intuition. This is not the intuition that directs you to a candidate but rather a sense that tells you to continue analyzing a candidate.

For example, when you're considering a move that seems so obviously correct in terms of general principles – but you can't make it work tactically – you should be wary of giving up on it too early.

Sulskis-Tiviakov
Gibraltar 2003



Black to play

Black sees that 1...♖xe4? walks into 2 ♗xh6 ♗xh6? 3 ♘f6+. Because of this and his analysis of other trees, getting rid of the White knight should be a top priority.

Black chose 1...a5!?. The attempt to trade off the knight with ...♘b4 failed after 2 ♖c1! (because of 2...♘b4 3 ♖xc8 ♕xc8 4 ♕xf7+), Instead, Black played 2...a4 and was clearly worse after 3 bxa4 ♘e5 4 ♕d1 ♖xc1+? (4...♘c4!) 5 ♗xc1.

Let's examine what would have happened if Black had looked further at an "obvious" move.

1 ... ♘e7!

Black doesn't have to worry much about 2 ♘b6 ♖c6 or 2 ♘c3. The only reply that looks dangerous is:

2 ♘f4

Black may have rejected 1...♘e7 because now 2...♖e5 can be met by 3 ♗d4. Then it is his best minor piece, the bishop, that will be traded off.

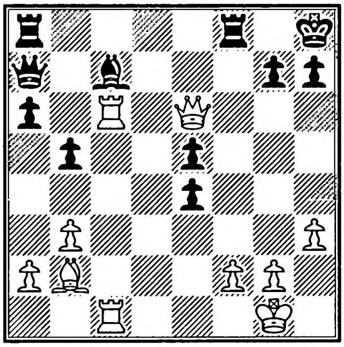
However, Black shouldn't give up on 1...♘e7 before examining all the forcing moves at his disposal.

2 ... ♕c6!

Black threatens both 3...♕xe4+ as well as the deadly check at c2. This wins time to capture on e4 and secure an edge.

An improving player learns to recognize an ugly move, like 1...a5, and a suspicious one, like 1 f4 on p.100. But he also learns to sense when there may be a dramatic hidden candidate that is worth searching for. The uglier, the more hopeless the candidate you are considering, the more time it's worth looking for an alternative.

Sasikiran-Sakaev
Copenhagen 2003



White to play

Black is under heavy pressure but his last move, ...♕a7, pointed out that White has a weakness.

1 ♖1c2

This is a natural way to defend f2 while maintaining the threat to take the bishop. White saw that one of the forcing replies, 1...e3, can safely be ignored – 2 ♖xc7! exf2+ 3 ♔f1 and wins (3...♕e3 4 ♕xe5).

Black saw that too, and resigned himself to 1...♗a5 2 ♕xe5 ♖ae8 – which was followed by his actual resignation after 3 ♖xa6!. He decided not to play out the lost rook ending of 3...♕d7 4 ♕xg7+! ♕xg7 5 ♗xg7+ ♔xg7 6 ♖xa5.

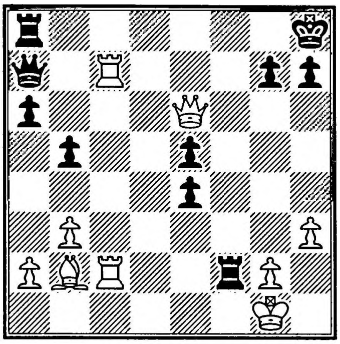
Since his prospects after 1...♗a5? are so dismal, Black should have looked for a magical resource. It might not be there, of course. But in searching for a candidate, it pays to be optimistic, as noted earlier. If Black had searched further, he might have there was magic in:

1 ... ♖xf2!

Both players considered this and had seen 2 ♖xf2 ♖f8 3 ♖cc2 ♗b6 is not bad for Black. The worst-case test was:

2 ♖xc7

White is a piece up and clearly 2...♖f6+ 3 ♖xa7 ♖xe6 4 ♖xa8+ doesn't work. Black apparently saw this far and gave up on 1...♖xf2. But:



2 ... ♖f1+!

This is the magic move – 3 ♔xf1 allows 3...♖f8+ and White has to give up his queen to avoid mate. Instead, his best is a perpetual check after 3 ♔h2! ♕g1+ 4 ♔g3 ♕e3+.

In fact, 1 ♖1c2? was an error. The correct defense was 1 ♖1c5, after which 1...e3 again loses to 2 ♖xc7 exf2+ 3 ♔f1. However 1...♗a5! isn't nearly as bad a position as it as after 1 ♖1c2. After 2 ♕xe5 ♕f7 the struggle would continue.

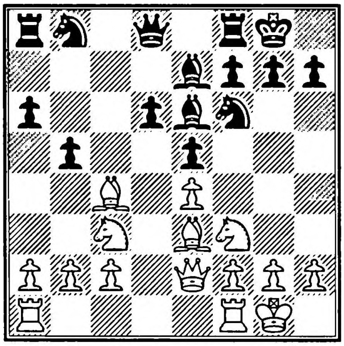
It's true that both 1 ♖1c2? and the reply 1...♗a5? looked "obvious." But as Viktor Korchnoi has said, "All obvious moves look dubious after the game." The only way to protect yourself against making one during the game is accurate analysis.

6: Evaluation and Expectation

Some moves have to be evaluated on their own merits because there are no tree branches to consider. In the first diagram of this book, for example, White had to judge 20 ♖ad1, 20 ♖ab1 and other candidates in general terms, just as Black did with 20...♖b8, 20...♗f8 and so on. There were no forcing ideas to help either player calculate.

But when there are checks, captures and other tactical elements in the air you can evaluate a candidate based on trees. What usually matters then is not how far you see into the future but how accurate is your evaluation of the worst case.

J. Polgar-Anand
Wijk aan Zee 1998



White to play

In this position Black has just challenged the bishop with ...b5. He knows White is limited to three candidates, the two retreats and the capture on e6.

1 ♗b3

This can be chosen almost entirely on the basis of general principles. White avoids 1 ♗xe6 – because 1...fxe6 would deny her d5 and f5 as potential outposts – and 1 ♗d3 – because the bishop would control squares of less importance than on b3.

The only analysis White might be tempted into is deciding whether 1 ♗b3 b4 wins the e-pawn. After seeing that 2 ♘a4 ♘xe4? or 2 ♘d5 ♘xe4? lose a piece to 3 ♗b6 White need look no further.

1 ... ♗xb3?

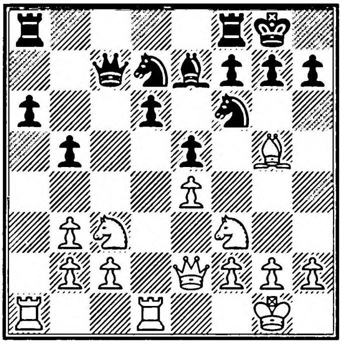
This was played fairly quickly and for a simple reason. Black wants to develop his last piece on d7. But 1...♘bd7? runs into a tactical problem, 2 ♗xe6 fxe6 3 ♘g5 and ♘xe6. He didn't want to spend a tempo (1...h6) to prepare 2...♘bd7.

2 axb3 ♘bd7

Black has the development he wanted and has saved a tempo. But the benefits of 1...♗xb3? are not nearly worth the concession he made. The result is a textbook illustration of a positional disadvantage.

3 ♖fd1 ♕c7

4 ♗g5!



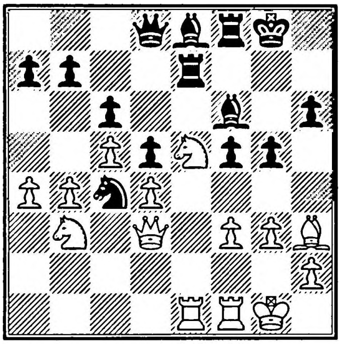
Chances seem roughly balanced but this is deceptive. Black is already in trouble. Thanks to a routine but strong plan of ♗xf6 and ♘d5, White will gain control of d5 and leave Black with a bad bishop: 4...♖fc8 5 ♘e1 ♕b7 6 ♗xf6 ♘xf6 7 ♘d5 ♘xd5 8 ♖xd5! followed by c2-c3 and ♘c2-e3.

Black didn't overlook moves in his analysis, stop too short or otherwise miscalculate. He simply misevaluated the position that arose after 1...♗xb3? – that is, one move into the future.

This is not the book that will teach you what a good position looks like or what makes a bad position bad. There are excellent treatises that do that. But there is something else to be learned – about how to make a better use of evaluation in move selection.

Evaluation usually plays its greatest role at the end of the selection process: After the analysis of a tree branch, you count up the pieces and figure out who is ahead. But good assessment skills can help much earlier – to spot candidates and allow you to make shortcuts in analysis.

Gleizerov-Gerber
Geneva 2004



White to play

Black has just shifted his knight from a3 to c4. He threatens to win a pawn with 1...♘xe5. If White replies 1 ♘xc4 dxc4 2 ♕xc4+ Black has 2...♗f7 with the idea of a later ...♗xb3 and ...♕xd4+.

1 f4!

White could have spent five, ten, 20 minutes or more on this move. He could have analyzed 1 ♗xf5 ♘xe5 in depth. Or he could have tried to find an edge somewhere far up the 1 ♘xc4 tree.

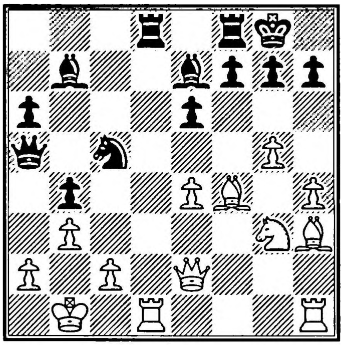
But 1 f4! is such a positionally desirable move that it jumps to the head of the list of candidates. The new pawn structure is highly favorable to White in light of his great e5 outpost, Black's poor minor pieces and the vulnerable f5-pawn.

This means White didn't really have to calculate 1 f4 in the usual sense of the word. All that was necessary for him to play it was (a) to make sure that ...♘xe5/fxe5 or dxe5 would be good for him – which it surely is – and (b) to check for cheapos. There weren't any.

White's superiority became clearer after 1...g4 2 ♗g2 ♗g7 3 ♖f2 ♖f6 4 ♕c3 h5 5 ♗f1 ♗f7 6 ♗d3! (there was no rush to take on c4) ♗e6 7 ♖fe2 ♘xe5 8 dxe5 ♖h6 9 ♘d4.

Evaluation plays an equally important role when there is a positionally suspect – but otherwise promising – candidate available.

Anand-Khalifman
World Championship (FIDE)
tournament 1997



Black to play

1 ... ♕b5!

Because this allows White to badly damage his queenside pawns, Black couldn't make the kind of quick evaluation that you could with 1 f4 in the previous example. Black can reason this way:

White's attack is moving faster than his, so it makes sense to trade queens. His move is somewhat forcing since 2...♕xe2 would win a pawn. If White takes on b5 his e-pawn becomes a constant target and is under more immediate pressure than Black's doubled pawns. And if White avoids 2 ♕xb5, Black has gained time for ...a5-a4xb3.

2 ♕xb5?

"Faulty evaluation," Black said in *Shakhmaty v Rossii*. Better is 2 ♕e3!, which keeps matters in balance.

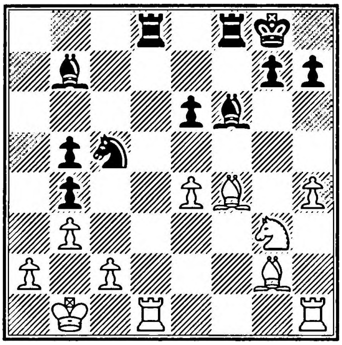
2 ... axb5

3 ♗g2

Black is already better, e.g. 3 ♖he1 ♖xd1+ 4 ♖xd1 ♘xe4 5 ♘xe4 ♗xe4 6 ♖d7 ♖e8.

3 ... f5!

4 gxf6 ♗xf6



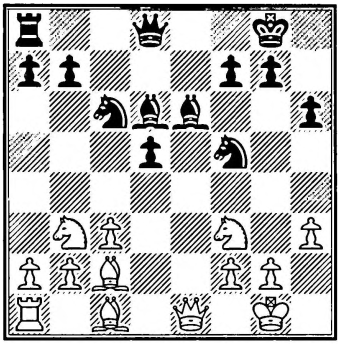
This turn of events came about because Black correctly evaluated an unlikely move, 1...♕b5, and White didn't.

PLUSSES AND MINUSES

Evaluation of positions like that is usually not a high priority for a novice because he tends to be concerned with material. A good move to him is usually one that wins a piece or pawns or improves his material situation in some other way, such as by advancing a pawn nearer to promotion.

But as he improves, he learns how important it is to evaluate equal material positions, including the difficult ones with positional plusses and minuses. By recognizing patterns, especially favorable pawn structures, he will be attracted to candidates he wouldn't have considered earlier in his playing career.

Tiviakov-Berkes
Plovdiv 2003



White to play

A novice might conclude White was worse because there are no strong squares on which to develop his queen and QB. If he has nothing better than 1 ♕e2 and 1 ♗d2, while Black is playing ...♕f6 or ...♕d7, followed by ...♖e8, he would indeed be worse.

1 ♗e3!

You can try to calculate several moves ahead to justify this move. Or you can find it the easy way, by relying on an understanding of the pawn structure: The best thing about White's position is the prospect of occupying d4 with a pieces. But 1 ♕d1 could be met by 1...♕f6, after which 2 ♘bd4 results in exchanges that leaves d4 occupied by a pawn. At best White would be equal.

1 ... ♕f6

Both sides understand that 1...♘xe3 2 ♕xe3 ♕f6 3 ♖e1 favors White because of the eventual ♘bd4.

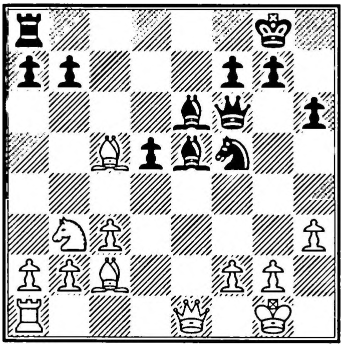
2 ♗c5

White wants to swap his slightly bad bishop for Black's good one and improve his chance of occupying d4 with a knight.

2 ... ♘e5?

Black should preserve pieces with 2...♗c7 or 2...♗f4.

3 ♘xe5 ♗xe5



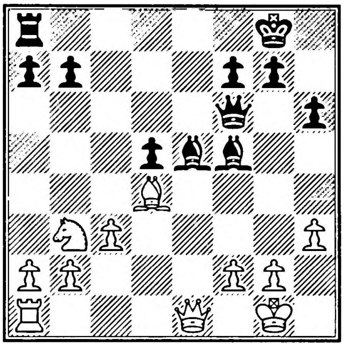
4 ♗xf5!

Another low-calc move that a master knows should be good because of the pawn structure.

4 ... ♗xf5

5 ♗d4!

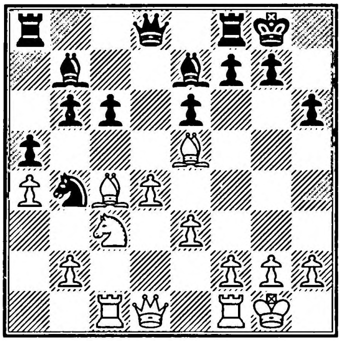
This assures White of a middlegame in which his good knight will be superior to a bad bishop. His advantage is slight but good evaluators know that this kind of edge is enduring, that there is little Black counterplay and that a trade of heavy pieces will only increase White's winning chances.



White's assessment was borne out by 5...♖e8 6 ♕e3 ♔h7 7 ♗xe5 ♖xe5 8 ♕f4 ♖e4 9 ♕f3 ♕e5 10 ♘d4 ♗g6 11 ♕d1 ♕e7 12 ♕d2 f6 13 ♖d1 and he eventually won.

In that example White could rely on low-calc moves because he understood how favorable the pawn structure was. In a more double-edged position like the following, appreciating the pawn structure also helps cut down on calculation.

Dreev-I. Sokolov
Sarajevo 2002



Black to play

Black has just traded knights on e5. He intends to reduce the pressure on his position further with:

1 ... ♗f6

General principles suggest White should avoid a trade of bishops with 2 ♗g3. Then Black can liberate his game somewhat with 2...c5 but White would retain an edge after 3 dxc5.

What if White allows an exchange on e5? That would double his pawns and grant Black a nice square for his pieces at c5. But White gets a potential outpost on an open file, at d6, and the prospect of f2-f4-f5.

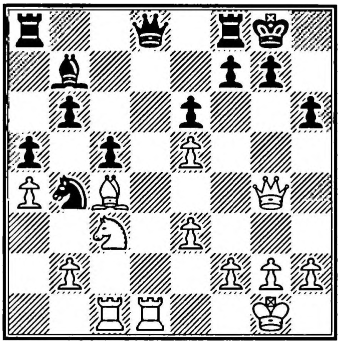
2 ♕g4!

White correctly concluded the plusses outweigh the minuses as long as there are plenty of pieces on the board. For example, 2...♗xe5 3 dxe5 ♕d2 4 b3 c5 and now both 5 ♘e4 and 5 ♘b5 favor him.

2 ... c5

3 ♖fd1

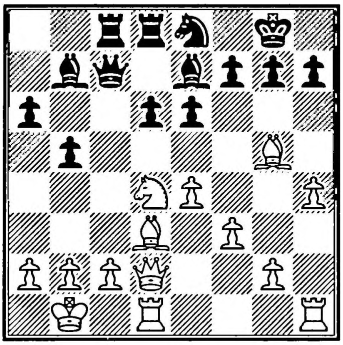
Black replied 3...♘c6 4 ♘b5 ♗xe5 5 dxe5 but was inferior after 5...♘xe5 6 ♖xd8 ♘xg4 7 ♖d6. (Even worse was 4 ♗xf6! ♕xf6 5 ♘e4.) The key alternative was 3...♗xe5 4 dxe5.



Despite the pawns, White would have the edge in the 4...♕g5 5 ♕xg5 endgame. If Black stays in the middlegame his pawns turn out to be weaker than White's after 4...♕e7 (or 4...♕c7) 5 ♖d6!.

Note how the plusses of dxe5 helped White simplify his thinking. In the next, even more tactical position White was able to accelerate a mating attack – at a minimum of calculation – once he recognized a favorable pawn structure.

Bologan-Ye Jiangchuan
Beijing 2000



White to play

Black has just retreated his knight to e8.

1 g4

White knows that 1...♗xg5 2 hxg5 only helps his attack, by opening half of the h-file. His main concern is a different potential change in the pawn structure – what to do if Black blows open the center with ...d5.

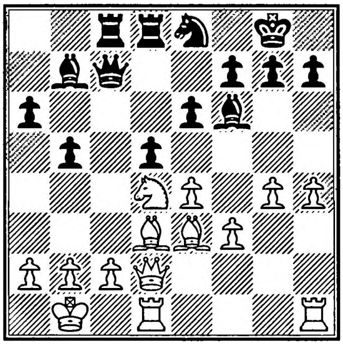
1 ... ♗f6

2 ♗e3!

This could be played purely on general principles ("Preserve pieces when you have the attack"). This is verified by 2 ♗xf6 ♘xf6 3 g5 ♘h5 4 f4? e5 when the center is opened in another way.

2 ... d5

Otherwise 3 g5 is strong.



3 e5!

This candidate would only occur to White if he appreciated how favorable the pawn structure is without the White e-pawn on the board. By avoiding exd5 or ...dxe4, White ensures that Black's pieces, especially the d8-rook and b7-bishop, will be shut out of play for several moves.

There's a wonderful feeling when you discover a surprising candidate. Once White saw that 3...♕xe5 couldn't be played because of 4 g5 ♗e7 5 ♗f4! ♕xd4 6 ♗xh7+, he realized 3 e5 was strong. He said his mood became "euphoria."

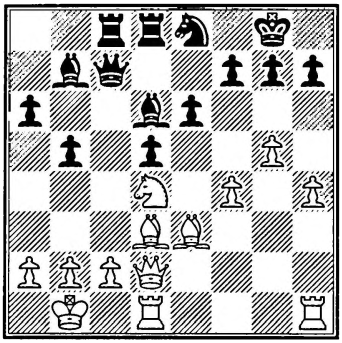
3 ... ♗xe5

White didn't have to analyze 3...♗e7 4 g5 more than one move into the future. From experience in the Sicilian Defense, he could assume that moves such as 5 h5, followed by 6 ♖dg1 and 7 g6, would grant him good chances. The worst case had to be 3...♗xe5.

4 f4 ♗d6

Also bad was 4...♗xd4 5 ♗xd4 ♘d6 6 h5 ♘c4 7 ♕f2 followed by pushing pawns to open the kingside.

5 g5

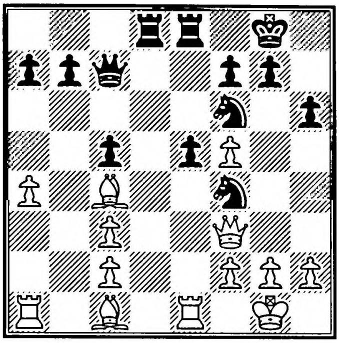


Black's pieces remain out of play and White's initiative won after 5...e5 6 fxe5 ♗xe5 7 g6! (7...hxg6 8 h5). His moves became easier to find once he came to the right conclusion about 3 e5!.

THE LIMITS OF EVALUATION

The last three examples can be very difficult if you're not familiar with similar positions and pawn structures. Don't be dismayed. You should never become depressed or discouraged because you can't evaluate a position. Some positions are so imbalanced that they defy evaluation even by computers – or by the professionals who make a living by evaluating positions.

Short-Anand
Linares 1992



White to play

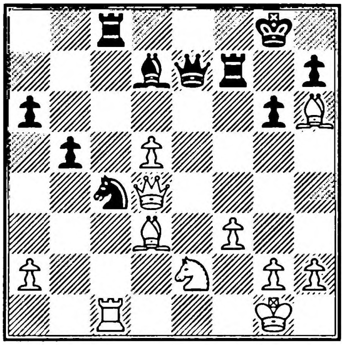
White has two sets of doubled pawns. But he also holds the two bishops. Black's f4-knight is both aggressively placed and vulnerable. Are these plusses and minuses hard to assess? No, they're impossible.

In such positions "people's assessment function just collapses," White wrote in *New in Chess*. He believed he had either a slight or considerable edge – while Black thought he was doing well.

The best way to handle such a position is to forget about trying to figure out who is better. After the game you can try to establish the truth. (In this case White eventually obtained the upper hand with 1 a5 ♘4d5 2 ♕g3 ♔h7 3 h3 ♖e7 4 ♗f1 ♕c8 5 ♖xe5 ♖xe5 6 ♕xe5 ♖e8 7 ♕g3 c4 8 ♗b2 ♕xf5 9 ♗xc4.)

When the plusses and minuses are confusing you should evaluate moves as best as you can based on their own merits.

Gligoric-Portisch
San Antonio 1972



White to play

White sacrificed the Exchange in the opening and later won a pawn. Who is better? "Portisch thought the position was now even but I considered myself to have the worse position," White wrote in the tournament book. "Only after the game did I realize that I was better."

1 ♗xc4

White felt the knight was better than the bishop and the new pawn at c4 might be weak.

1 ... bxc4

Forced since 1...♖xc4 allows 2 ♖xc4 bxc4 3 ♕xc4.

2 ♗e3

Only here did White's misevaluation of the position influence his play. He regarded a trade of queens as dangerous and therefore avoided 2 ♘c3 ♕c5 (which actually favors him slightly).

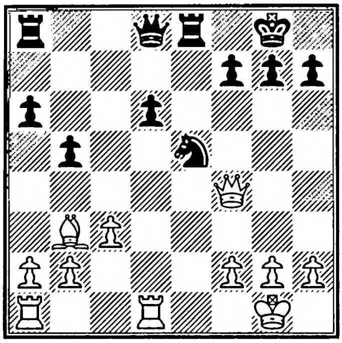
But 2 ♗e3, which coordinates his pieces and prepares ♔f2 and ♘g3-e4, is a perfectly good move as well. His advantage only became clear after 2...♖e8 3 ♔f2 ♕d6 4 ♘g3 ♗b5 5 ♘e4 and he eventually won.

Don't forget why you evaluate positions – to help you pick the best candidate. If you can't evaluate the current position or a future position, you will simply make your choice using other criteria.

THE MULTI-PURPOSE MOVE

Those criteria begin with the candidate cues mentioned in Chapter 2. A move that is suggested by more than one cue or which serves more than one function should move to the top of your list of candidates.

Palac-Belyavsky
Slovenian Team Championship
2003



White to play

1 ♖d4!

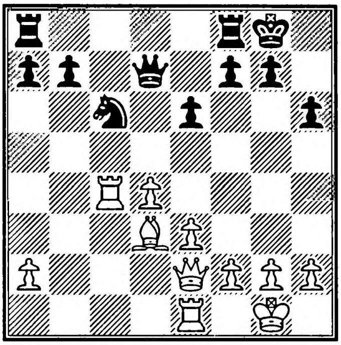
This accomplishes several things. It prepares to double or even triple heavy pieces on the d-file (♖ad1, ♕d2). It forestalls counterplay that could arise from ...♖c8 and ...♘c4. It creates the possibility of an attack on f7 with ♖f4. And it avoids complications such as 1 ♕d4 ♕d7 2 ♕xd6 ♘f3+! and ...♖e1+.

White's advantage grew steadily (1...♕e7 2 h3 ♖ab8 3 ♖ad1 ♖ed8 4 ♕d2) and he won without much difficulty.

But there is a common pitfall to avoid. When considering a move that has multiple virtues, remember that it also has to be judged by its drawbacks. Seven good reasons to play a move may not make up for one good reason not to.

The most common form of this mistake is choosing a move because it is more forcing than another candidate that seems to have similar other virtues. Its force tends to overshadow the move's down-side.

Roiz-Godena
Saint-Vincent 2004



Black to play

The position looks better for White than it really is. Since neither player can allow the other to dominate the c-file, a trade of heavy pieces into a drawish minor-piece ending is likely. For example, 1...♘e7 and 2...♖fc8 followed by ...♖xc4 and ...♖c8.

1 ... ♘a5
2 ♖c5 b6
3 ♖c2

Black's moves served dual purposes. First he cleared the c-file and did it with tempo (compared with 1...♘e7). Then he protected his knight, again with tempo.

3 ... ♖ac8

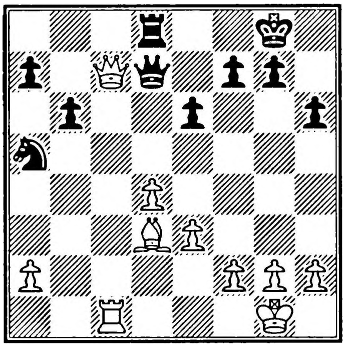
4 ♖ec1

But by now Black should realize that 1...♘a5? and 2...b6? were bad. The weakening of c6 and a6 far outweighs the gain of tempi. White will play ♗b5, ♗a6 or ♗e4 (and ♕a6) and drive Black off the c-file.

4 ... ♖xc2

5 ♕xc2 ♖d8

6 ♕c7

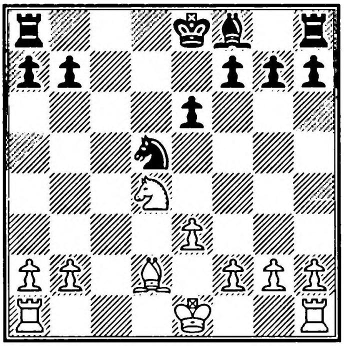


White's position is strategically won and this became evident after 6...♔f8 7 ♗b5 (7...♕xc7 8 ♖xc7 ♖a8 9 ♗a6).

SEEDS OF MISEVALUATION

The most common cause of misevaluation is a lack of objectivity. Young players typically see more for themselves in a position than for their opponents. This seems to have a psychological basis. A Russian author, Victor Malkin, cited an experiment in which 20 Soviet-era players were shown this position.

Nimzovich-Tarrasch
Breslau 1925



Black to play

The experiment subjects, three masters and 17 candidate masters, were asked to appraise the position and select the best move for Black.

Aron Nimzovich gave the position in *My System* with the comment that Black must handle the defense "very carefully." White developed a serious edge after 1...♗c5?! 2 ♘b3 ♗b4?! 3 ♖c1 ♖d8 4 ♗xb4 ♘xb4 5 ♔e2 ♔e7 6 ♖c4 ♘a6 (6...♘xa2 7 ♖a1) 7 ♖hc1 and won.

But only three of the experiment subjects felt White was better. Eight regarded the position as even – and nine thought Black was better.

This wasn't a reflection of playing strength. Soviet candidate masters were often stronger than Western masters. Malkin attributed the faulty evaluation to two factors:

It is Black's turn, and players often overestimate the value of being able to make the game's next move. Second, when a player tries to find the best move in a diagramed position he often identifies with the player on move and shades his evaluation in that direction.

Amateurs, even up to the strength of the experiment subjects, are often surprised by how much better their opponent's position looks when the board is turned around. Some will even spend a minute or two during a tournament game standing behind their opponent's chair to see it his way.

You can try to correct your own tendency towards overestimation by selecting an unannotated master game at random. Play the first 20 or so moves on a board from White's point of view. Then express an opinion out loud about who stands better and by how much. Once you've done that, turn the board around and see if your opinion changes. It shouldn't. If it does, repeat the process with other positions to try enhance your objectivity. When your evaluation from both perspectives begins to coincide, you're making progress.

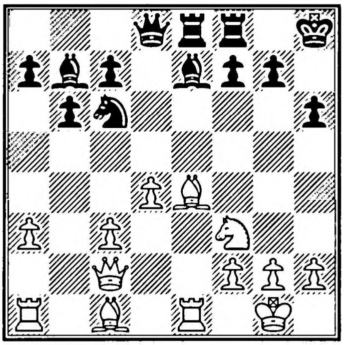
UNDERESTIMATION

The flip side of this kind of lack of objectivity is overestimating the resources of your opponent. This can be blamed on *too much* experience. After you lose several games because you underrated your opponent's counterplay, you can become gun-shy. You may avoid playing what would have been the best candidate because you exaggerate the amount of enemy counterplay in a tree branch.

In his later years GM Yefim Geller was notorious for seeing more for his opponent than really existed in a position. His caution served him well in his younger years, and he is credited with popularizing ♔h1 in various Sicilian Defense positions to avoid tactical problems that were moves away. But the older Geller often relied on a lazy, wasteful moves like ♔h1 to avoid calculating the kind of promising candidates that a younger Geller would have chosen.

Even the older Garry Kasparov has been known to see more for his opponent than exists.

Kasparov-Kramnik
Linares 2000



White to play

After considerable thought White chose the quiet 1 ♗b2 and agreed to a draw two moves later. There was something to be said for an alternative, the forcing 1 d5 and then 1...♘a5 2 c4. But the focus of White's attention was:

1 **♕a4**

He liked this move because it is not easy for Black to meet the ♗xc6 threat without making a concession. White's move has a second purpose, to bring his queen to the kingside via b5, e.g. 1...♕d6 2 ♕b5 and 3 ♕f5 with a threat of mate on h7. But in the end he rejected 1 ♕a4 because he saw a tricky defense. Here is what might have occurred.

1 ... **a6**

This stops ♕b5 and challenges White to take on c6.

2 **♗xc6** **b5**

White's kingside is going to be broken up one way (3 ♕a5 ♗xc6 4 ♕xa6 ♗xf3) or the other.

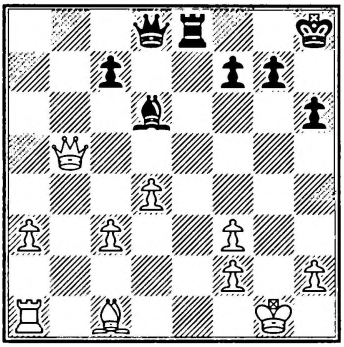
3 **♗xb5** **axb5**

4 **♕xb5** **♗xf3**

This is the worst-case scenario of 1 ♕a4 a6 from White's point of view. His ruptured king position may offer Black compensation for the lost pawns.

5 **gxf3** **♗d6**

6 **♖xe8** **♖xe8**



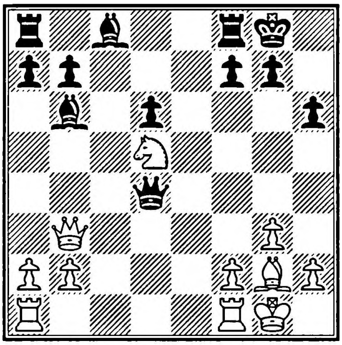
The forcing moves are over. White is two pawns up and his kingside is porous. When he looks one move further he can see the dangerous ...♖e6 (or ...♖e1+) followed by ...♕h4 or ...♖g6+.

But this is a mirage. After 7 ♗e3 ♖e6 8 ♕h5! White's advantage is evident. He frightened himself out of 1 ♕a4 with an overestimation of his opponent's chances.

EXPECTATION

There is one major factor closely related to evaluation that we regularly rely on for choosing one candidate over another. Yet it is rarely mentioned in books. This is our level of expectation.

Marin-Nevednichi
Romania 2000



White to play

Since you're seeing this position cold, without knowing what preceded it, it's difficult to evaluate with any degree of accuracy. You might think White's priority is getting back his lost pawn, even if that means swapping a lot of pieces.

1 ♖ad1

He starts with a developing move that attacks the only available target.

1 ... ♕c5

Anything else loses a pawn (2 ♘xb6) and leaves Black with the worst of the middlegame.

2 ♖c1 ♕d4

3 ♖cd1

White would like to play 3 ♖fd1? but it allows 3...♕xf2+.

3 ... ♕c5

4 ♖c1 ♕d4

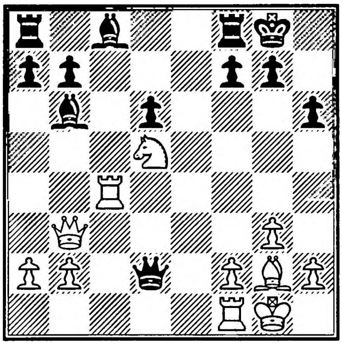
White faces a crucial decision here. He can take a draw by repeating the position (5 ♖cd1). And why shouldn't he? After all, he is a pawn down.

White didn't. The reason is he didn't lose a pawn in the opening. He sacrificed it to obtain pressure and the initiative.

5 ♖c4!

And because he got what he wanted White expected more out of the position than a draw. He also expected more than the regaining of the pawn via 5 ♘e7+ ♔h8 6 ♘xc8 ♖axc8 7 ♖xc8 and 8 ♕xf7. He correctly evaluated the worst case, 8...♕xb2 9 ♗xb7 ♖d8 10 ♗d5 ♕f6, as better for him. But White only stands slightly better then and the bishops of opposite color make a draw the most likely result.

5 ... ♕d2



6 ♘xb6 axb6

7 a3!

Again White rejects a promising move, 7 ♕xb6, because it leads to a position which is only mildly favorable (7...♖xa2 8 b4). Trades of pawns help the defender.

7 ... ♗e6

8 ♕b4

The ending (8...♕xb4 9 ♖xb4) is quite good for White because Black will be left with two weak queenside pawn after the third falls. White will retain two queenside pawns, that is, two potential queens.

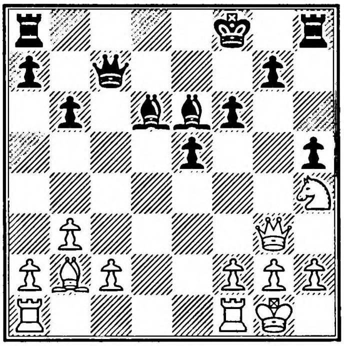
8 ... ♕g5

Now with 9 ♖c7! White has excellent winning chances.

Expectation is another thinking shortcut. It enables you to quickly reject "good enough" candidates, the ones that are quite reasonable but second-best. Moves such as 5 ♖cd1? or 7 ♕xb6? might have been chosen by many players because there's nothing clearly wrong with them.

Your level of expectation can warn you when to look for something better. In the next example White is twice offered an opportunity to win the Exchange. But his expectations tell him to resist the temptation.

Vescovi-Miton
Moscow 2004



Black to play

On the previous move Black played ...f6 to defend the e-pawn. White replied ♘f3-h4, threatening to exploit the down-side of ...f6 with ♘g6+.

1 ... ♕xc2?

Black sees an inexpensive way out of his difficulties. He wouldn't mind playing 2 ♘g6+ ♔f7 3 ♘xh8+ ♖xh8, particularly if White allows the 4 ♕c3 ♕xc3 endgame.

2 ♖ad1!

White plays against the downside of 1...♕xc2 – the bishop was left undefended on d6 – and plays up to his level of expectations – a possible knockout in the middlegame.

2 ... ♗c5

Black doesn't have the defensive pieces to survive 2...♕xb2 3 ♖xd6 (3...♔f7 4 ♕g6+ ♔e7 5 ♖fd1 or 3...♗f7 4 ♘f5).

3 ♗xe5!

Again 3 ♘g6+ was an obvious move. But White's expectations escalated after 2...♗c5 because that move gave him control of the d-file. When he looked further White noticed that 2...♗c5 also weakened Black's control of e5.

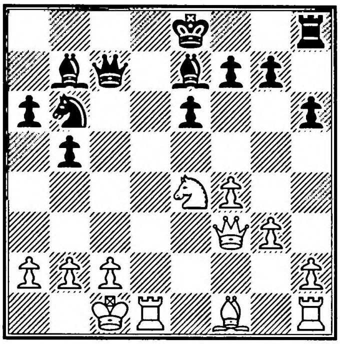
3 ... fxe5

4 ♕f3+

Play continued 4...♔e7 5 ♖d3!, which threatens to win a rook (6 ♘g6+) and keep the attack going. White won with 5...♖hd8 6 ♘g6+ ♔e8 7 ♕c6+ ♗d7 8 ♕d5! ♗f8 9 ♘xe5 Resigns.

The bottom line to evaluating a candidate is not just who stands better and by how much. There is a related question which is usually more significant: *Does the candidate lead, in the worst-case scenario, to a position that matches or exceeds what I expect to get out of the position?* If it doesn't, you should shop around for another candidate.

Ivanchuk-Kramnik
Dos Hermanas 1996



Black to play

Black has sacrificed the Exchange and would have fine compensation after 1...0-0. Castling certainly is a "good enough" move.

But compensation doesn't mean an advantage. It means a double edged position. Black expected more than that when he gave up his rook for a bishop.

1 ... f5!

Tactics suggest this way of exploiting the pin. Both players had foreseen this as well as their next move.

2 ♕h5+ ♔f8

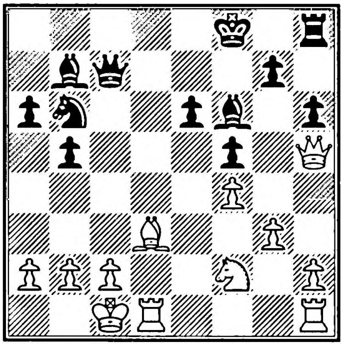
3 ♘f2

This retreat vindicates Black's decision back at the diagram. He can reestablish material equality and enjoy more than just promising chances after 3...♗xh1 4 ♘xh1 ♗f6. His dark squared bishop would be quite strong in coordination with ...♘a4.

3 ... ♗f6!

But again Black picks the more enterprising candidate because his hopes are rising. He can see that 4 ♖g1 allows 4...♘a4 after which 5 c3? ♘xc3 and 5 b3 ♘c3 favor him. It takes further analysis to see that 5 ♘d3 doesn't stop a strong sacrifice on b2 (5...♗e4! 6 ♕e2 ♘xb2! 7 ♘xb2 ♕c3, e.g. 8 ♘d3 ♕a1+ 9 ♔d2 ♗c3+ 10 ♔e3 ♗d4+ 11 ♔d2 ♕c3+ and ...♗xg1).

4 ♗d3



White can only hope to give the Exchange back in a way that will extinguish the Black attack (4...♗xh1 5 ♖xh1 ♘a4 6 ♘d1). But by now Black had seen enough favorable tree branches in his future to feel he was close to a win.

4 ... ♘a4!

White's king position is destroyed (5 b3 ♘c3 or 5 c3 ♘xb2! 6 ♔xb2 ♕xc3+). He eventually succumbed seven moves after 5 ♖he1 ♗xb2+ 6 ♔b1 ♗d5!.

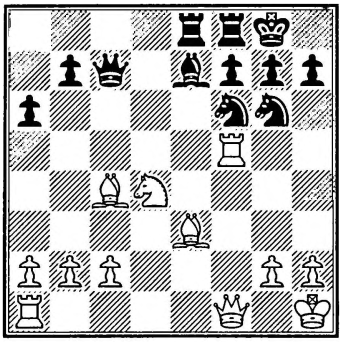
QUESTIONING YOURSELF

You may have used your level of expectation in the past without knowing it. This happened when a position suddenly arose in which your winning or drawing chances seemed to have inexplicably declined. All the candidates you looked at appeared to lead to positions worse than the ones you had considered when playing the last few moves.

In cases like that, you can ask yourself what happened: Have you really misplayed? Have your opponent's last moves been much better than yours?

If the answer seems to be no, then either you don't appreciate the true quality of the last few moves – or you haven't looked at enough candidates in the current position.

Adams-Dreev
Dortmund 1994



Black to play

White's last move, retreating the queen from e2, appeared to confirm Black's belief that he stood better. His tactical radar picked up 1...♗a3!?, which threatens the b-pawn and opens up an attack on the e3-bishop. That led him to consider the forcing 2 ♖xf6 and evaluate one branch, 2...♖xe3 3 ♖xg6, as safe for White. Another branch, 2...gxf6 3 ♗h6 ♗xb2, appeared much better.

1 ... ♘g4

Instead, he went with a simpler candidate that didn't require as much calculation and still seemed to meet his expectations. His move threatens mate on h2, attacks the bishop and prepares to occupy e3.

2 ♗g1 ♗f6

The new threat is 3...♗xd4 4 ♗xd4 ♕xh2 mate.

3 c3

Black is also doing well after 3 ♖d1 ♖e4 and 4...♖fe8.

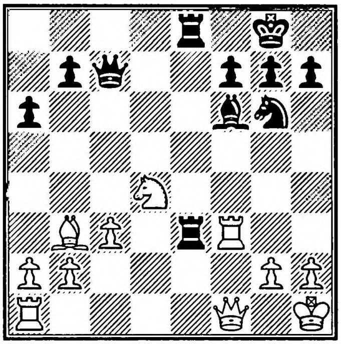
3 ... ♘e3

4 ♗xe3 ♖xe3

5 ♗b3 ♖fe8

To make progress Black needs targets on dark squares or a way of exploiting the e-file.

6 ♖f3



Here he was perplexed. His position should be getting better and better. But natural candidates such as 6...♕e5 (7 ♖xe3 ♕xe3 8 ♗d5) and 6...♘h4 (7 ♖xe3 ♖xe3 8 ♖d1) don't seem to give Black much.

"At first it seemed to me here that I had 'cheapened.' Where is the advantage?" Black wrote in *64*. He got into slight time trouble looking for the right plan.

6 ... ♖3e4!

Intuition may not help in such positions because intuition usually suggests a specific candidate. Expectation is more vague. It suggests an outcome, not the move leading to it. This move, which threatens to bring the knight to g4 with tempo after 7...♘e5, meets Black's expectations.

7 ♘f5?

Not 7 ♗c2 ♖xd4! 8 ♗xg6 (8 cxd4 ♕xc2) ♖d2 and 9...♖xb2 or 9...♖ee2. But passing with 7 ♗d5 ♖4e5 8 ♗b3 would stop Black's immediate plan.

7 ... ♘e5

8 ♖g3 ♘g4!

The threat of 9...♖f4 is powerful, e.g. 9 ♗d5 ♖f4 10 ♗f3 h5! with a big edge.

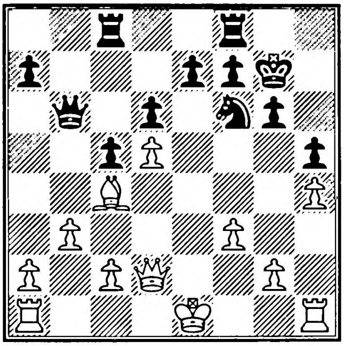
White complicated matters with 9 ♖xg4 ♖xg4 10 ♘h6+ gxh6 11 ♕xf6 but the Exchange prevailed following 11...♖ge4! 12 ♖g1 ♖e1 (or 12 ♖f1 ♖f4!).

YOUR EXPECTATIONS VERSUS HIS

Expectations will fluctuate in the course of the game, often in response to an opponent's last move. We saw that in the first chapter when Kasparov, against the World, had to lower his expectations as he considered his 15th move. That led him to return to a candidate he had rejected, 15 ♘c3.

To be useful in selecting candidates, your expectations must be realistic. When the expectations of both players are high, one side is probably too optimistic – and bad decisions will result.

Anand-Kasparov
World Championship (PCA) match
1995



Black to play

White has just recaptured exd5. Black felt he shouldn't be worse. But as he examined routine candidates he realized White could pile up on the e-pawn or develop serious attacking chances with ♕g5 and/or g2-g4.

1 ... e5!

Now however there is no target at e7 to worry about and the kingside is more difficult to attack because Black has gained space there. The pawn move meets Black's expectations.

2 dxe6?

White played this instantly because of his expectations. He thought the position in the diagram wasn't bad for him. But the new pawn structure after 1...e5 was so lacking in promise that he felt he had to change it.

2 ... d5

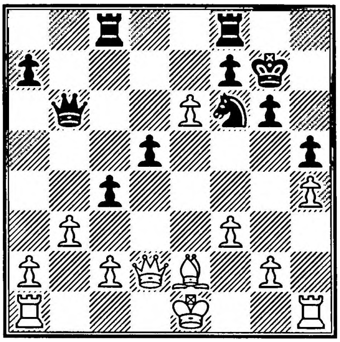
Black hadn't seriously considered the en passant capture because it seemed to violate general principles ("You cannot go for such an experiment with your king on e1," he said). He uses a tactic (3 ♗xd5 ♖fd8 wins a piece) that fits in with his rising optimism.

3 ♗e2

Now 3...♕xe6 could be met by 4 0-0-0 and ♖he1 with reasonable chances. But Black felt he was on the verge of a serious edge.

3 ... c4!

"For the first time in my life, one move immediately prevented both ways of castling," he said.



White's leading candidates are bad – 4 0-0-0 because of 4...cxb3 5 axb3 ♕xb3 and 4 exf7 ♖xf7 5 bxc4 because of 5...♖e8, preparing to double rooks (6 ♔f1 ♘g4). He can hold on with 4 ♖d1 but lost swiftly after 4 c3? ♖ce8 5 bxc4 ♖xe6 6 ♔f1 ♖fe8.

This quick turn of events was made possible by expectations and mis-expectations. Black correctly went from thinking about trying to equalize (before he found 1...e5) to seeking an edge (with 3...c4). His expectation was backed up by analysis. White, however, forged ahead with 2 dxe6? without confirming his expectation and he paid the price.

UN-REALISM

Like any useful shortcut, expectation can lead to bad decisions like 2 dxe6?. There are three basic pitfalls:

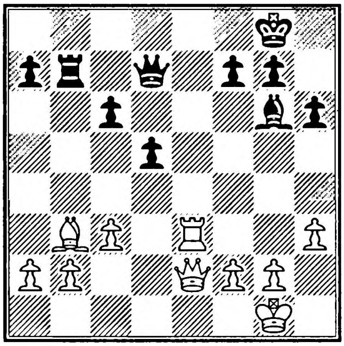
(a) You misevaluated the previous positions and have to make an important choice burdened with expectations that are too high.

(b) Your expectation tells you there must be a hidden candidate but you spend too much time looking for something that isn't there.

(c) You underestimate your chances and miss a tactical shot because you don't think your position was good enough to have such a resource.

The usual victims of the first pitfall are the game's eternal optimists.

Tchigorin-Cohn
Nuremberg 1906



White to play

White, one of the great optimists of 19th century chess, had been forcing matters throughout the middlegame. But as pieces became exchanged his steam-powered initiative ran out of coal.

1 ♔f1?!

Nevertheless White believed he should keep his winning chances alive by making moves that "do something." He brought his worst-placed piece towards the center.

1 ... c5

2 c4?

This gives White an outpost for the rook at d5 and fixes the c5-pawn as a target. But it also gives Black a protected passed pawn.

2 ... d4

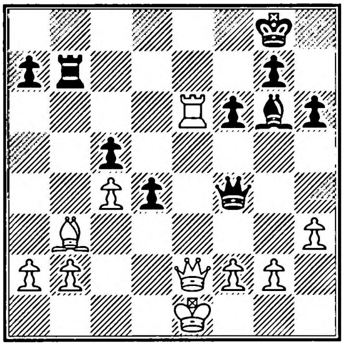
3 ♖e5 ♕d6

4 ♔e1?

White seems convinced that his king, blockading the passed pawn, will help enlarge his advantage – an advantage only he can see.

4 ... f6!

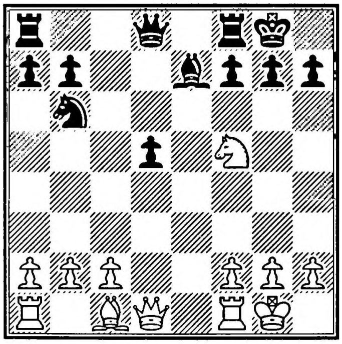
5 ♖e6 ♕f4



White's king and kingside are by far the most vulnerable targets now (6 ♕d2 ♕h2 and ...♕xg2 with or without ...♕h1+). He collapsed with 6 ♗d1 d3 7 ♕g4 ♕h2 8 ♔d2 ♖xb2+ 9 ♔c3 and now 9...♖c2+! 10 ♗xc2 dxc2 would win.

A similar misfortune befell Mikhail Tal in the 12th game of the 1960 World Championship match. He correctly sacrificed a pawn at move 28 and looked for sharp candidates after that. At move 33 he saw he could force the win of two pawns. But he rejected that line because his opponent would probably have been able to draw the ensuing queen endgame. So he proceeded to make a series of non-forcing moves until "I suddenly discovered – I was a pawn down!" He had optimistically rejected so many drawish lines since move 28 that he had forgotten he was behind in material.

Christiansen-Seirawan
U.S. Championship 1997



White to play

White has an initiative that, at minimum, he should be able to convert to some lingering advantage.

1 ♕g4! g6

Forced because 1...♗f6? allows 2 ♗h6. White can now solidify his positional edge with 2 ♘xe7+ and ♗e3-d4.

2 ♘h6+?

But he thought he had such a good position he could overwhelm Black with a few deft attacking moves.

2 ... ♔h8

3 ♖e1? f5

The knight is trapped and the attack is dead. White was lost after 4 ♕g3 ♗f6.

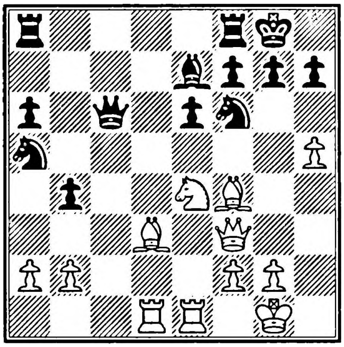
He was right to look for the kind of moves – forcing, aggressive, advancing – that matched his expectations. His error lay in expectations that were unrealistic. As Tal repeatedly warned, "Don't expect too much of a good thing."

LOWERING YOUR EXPECTATIONS

Suppose you believe you have a promising position but the first candidate you examine doesn't justify your expectations. You look further and find a second candidate but it also disappoints you. What then?

You could launch into a big think, studying the position for ten or 20 more minutes in the hopes that it will reward you with the discovery of a spectacular, hidden candidate. But the odds are against it. If the first two or three candidates fail your analytical test, it is time to play something solid. GMs often take that way out after their first candidate fails.

Kramnik-Huebner
Dortmund 2000



Black to play

White threatens to win material with ♘xf6+/ ♗e4 and prepares to weaken the kingside with h5-h6.

1 ... ♘d5

This removes the only good defensive piece from the kingside.

White should have something strong, he told himself. Since 2 ♖c1 ♕d7 goes nowhere he spent time examining 2 h6, with the idea of hxg7.

The natural defense, 2...g6, weakens f6, so White looked for a trick and found 3 ♗d6. That seems to win, e.g. 3...♗xd6 4 ♘f6+ ♘xf6?? 5 ♕xf6 and mates on g7, or 4...♔h8 5 ♘xd5 and 6 ♕f6+.

But when he rechecked the last branch White found that 5 ♘xd5 could be strongly met by 5...f5!. That was a rude shock. Further checking showed there were no magical resources for White that would save the 2 h6/3 ♗d6 branch. For example, 6 ♖xe6 is met by 6...♗xh2+ 7 ♔xh2 ♕xe6 8 ♘c7 ♕d6+.

When your analysis can't confirm the soundness of your "expectation move" and your calculation begins to run around in circles, it's time to stop torturing yourself.

2 ♗e5!

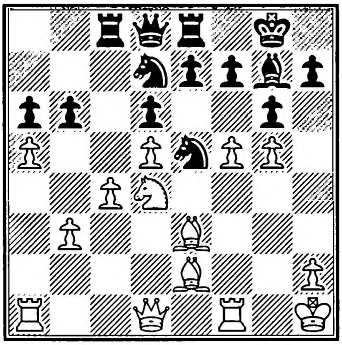
This isn't nearly as promising as 2 h6/3♗d6 seemed to be. But it is solid and based on valid principles – and that's a pretty good standard to meet. The only calculating that White might feel was necessary was finding an answer to the forcing 2...f6 (and then 3 ♗d4 e5). Once he sees 4 ♖c1 followed by putting a piece on c5, White can play 2 ♗e5 confidently.

As the game went, Black soon erred, 2...f5 3 ♕g3 ♖f7 4 ♘d2 ♘b7?, and was lost after 5 ♘f3 ♘c5 6 ♘d4 ♕b6 7 ♘xf5 exf5? 8 ♗c4 ♘f6 9 ♗c7! Resigns (in view of 10 ♖xe7).

White was right to be optimistic in the initial position. He was either much better – or just plain winning – and couldn't tell which. But when he couldn't find a win in the best-looking variation, 2 h6 g6 3 ♗d6, he did the correct thing. He just followed general principles and pressed his clock.

But there are bound to be times when this pragmatic policy will cost you a missed opportunity, as it did White in the following.

Benjamin-Xu
Seattle 2001



White to play

Black's last move, ...b6, is a desperate bid for counterplay before being overwhelmed on the kingside. But it contains risks since 1 axb6 ♘xb6? would lose the a-pawn without compensation (2 ♖xa6) and 1...♕xb6 allows White to discover an attack on the queen.

White spent considerable time checking out 1 axb6 ♕xb6. He examined 2 fxg6 hxg6 3 ♘f5 ♘c5 4 ♘xg7 ♔xg7 but eventually convinced himself Black would be safe enough.

1 ♕d2

A solid, general principle move.

1 ... bxa5

2 ♖xa5

White's edge is manifest (2...♘c5 3 b4 ♘cd7 4 fxg6 hxg6 5 ♖xa6 ♘xc4 6 ♗xc4 ♖xc4 7 ♕f2 and ♘c6).

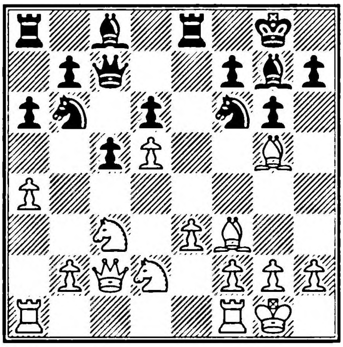
However, when White checked over the game with his computer he realized he had missed a forced win – 1 fxg6 hxg6 2 ♖xf7! and 3 ♘e6 traps the queen.

We'll return to the subject in Chapter 11. Nevertheless the guideline is sound: Picking a solid alternative is the best policy in most cases when you get stuck on a sharp candidate.

UNDER-EXPECTATION

The other expectation pitfall arises when you underestimate your own chances. Even players of great optimism do this.

Botvinnik-Tal
World Championship match,
eighth game 1960



Black to play

1 ... c4?

Black knew this was a risky sacrifice. It didn't turn out well after 2 ♗xf6 ♗xf6 3 a5 ♘d7 4 ♘ce4 ♗e5 5 ♕xc4 and White ultimately won.

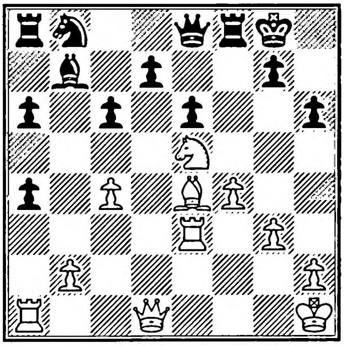
Why did Black panic into a pawn sack? The answer is that he had been planning since early in the opening to attack the d-pawn and bishop with ...♖e5. The position in the diagram seemed like the right moment for it. But after furiously calculating lines such as 1...♖e5 2 ♗f4 ♖f5 3 ♘de4! he realized the ...♖e5 idea was never going to work.

Having lost faith in ...♖e5, Black jumped to the conclusion that he needed to do something sharp to avoid a bad game. He apparently gave little thought to the quiet continuations which would have given him quite a reasonable position (1...♘bd7 or 1...♗d7 followed by ...♘c8, ...♖b8 and ...b5).

Expectation wouldn't play a significant role if we clinically evaluated the position on the board at every turn, the way a computer can. But we don't. That's why our disappointment in an idea (...♖e5) leads us to become disappointed in the position, even though it is only slightly worse.

A quite different version of under-expectation occurs in good positions.

Petrosian-Larsen
San Antonio 1972

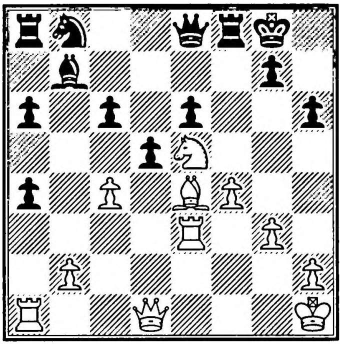


Black to play

After White's routine recapture on e4, Black found a forcing way to prepare ...♘d7.

1 ... d5

White sensed this was a tactical moment in view of what he called the "tremendous weakness" on the b1-h7 diagonal. He examined the problem-theme 2 ♗b1, with the idea of 3 ♕c2. But he gave up on it after a few minutes because of the danger of 2...c5! followed by 3...d4+.



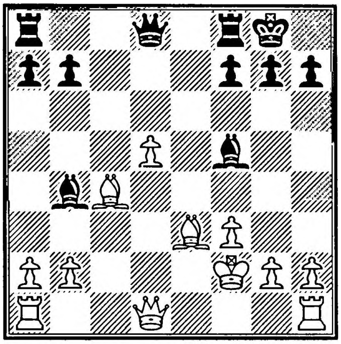
2 ♗g2?

What didn't occur to him was 2 ♗g6!, with a winning threat of 3 ♕c2 followed by 4 ♗h7+ and ♘g6+. For example, 2...♕d8 3 ♕c2 ♔h8 and now 4 ♗f7! (much stronger than 4 ♘f7+) and ♘g6+.

"I was so pleased with my position that I did not even notice" the killer, was White's explanation in the tournament book. He went on to win a 61-move game – which should have been a 31-mover.

A more striking example occurs in Bobby Fischer's notes to one of his games.

Lombardy-Fischer
U.S. Championship 1960



Black to play

Black sacrificed a pawn in the opening. In *My 60 Memorable Games* Fischer sought to show that the sack was sound. In answer to one of the moves White might have played, he gave a four-move sequence that led to this position.

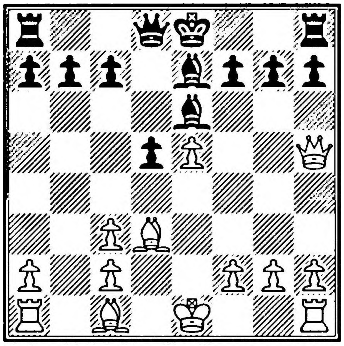
1 ... ♖e8

This grants Black sufficient compensation, he wrote, and he was right. The rook creates the possibility of 2...♖xe3 3 ♔xe3 ♕b6+, for example. But if you look at the diagram without Fischer's level of expectation what move would you play?

Exactly. You would find the win of a piece (1...♕h4+! and 2...♕xc4). Fischer missed it because he didn't expect to have a simple win in a position he had mentally consigned to the "double-edged" category.

Remember that your evaluation tends to be based on general features of a position. From time to time this may screen out the unusual, tactical features that seem to contradict all you've learned about chess.

Dolmatov-Mamedyarov
Moscow 2002



White to play

White played 1 f4, with the idea of 2 f5, and game was eventually drawn after 2...g6 3 ♕f3. He also considered 1 ♖b1 based on general principles. He rejected it because of:

1 ♖b1 ♕d7

Black threatens to trap the queen with 2...♗g4. This wins time for him to castle queenside.

2 h3 0-0-0

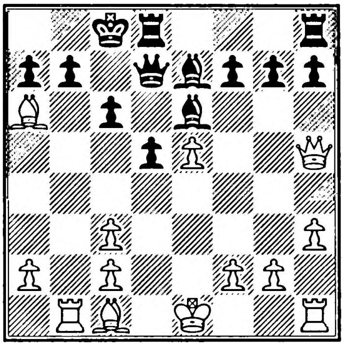
Black's king is safe, his pawn structure is superior and he enjoys a lead in development. He must be at least equal according to our standards of evaluation. Having played h2-h3, White's level of expectation should be falling.

3 ♗b5!

But after this, the most forcing candidate, Black is lost.

3 ... c6

4 ♗a6!



Black must give up his queen because 4...bxa6 5 ♕e2 and ♕xa6+ is worse.

White didn't see this because he couldn't believe that with only one attacking piece, the b1-rook, he could have a forced win. Yet Steinitz's rules can be turned upside down by tactical elements. Evaluation and expectation are both important in move selection. But tactics trump them both.

7: The Four Thinking Models

Move selection comes down to sorting out and comparing candidates. But how do you begin? You can't examine three candidates at once – the way a computer can. And you can't assign a numerical value at the end of each tree branch and then pick the highest-scoring candidate – the way a computer can.

Humans have to find their own path. Four routes to reaching a decision stand out:

(a) Prioritizing

(b) Thinking like a Kotov

(c) Elimination

(d) Back-and-forth

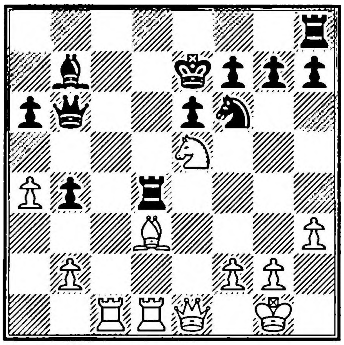
Each method has its merits and drawbacks. In some positions, one method may result in you choosing Candidate A while another leaves you with Candidate B. In many other positions, you will end up choosing the same candidate regardless of method. But you may not reach that conclusion with the same confidence or expenditure of time.

PRIORITIZING

This method is employed by most players when they're in time pressure: They focus on a particular move and it dominates their thinking until they find a flaw.

Many players do this even when they have plenty of time on their clock. For example, novices will become attached to the first candidate they spot and will play it without performing any analysis. Stronger players will look further than that but perhaps only to confirm that their instinct about the move was right. And sometimes a grandmaster will play a move without trying to see if there is a stronger candidate. This was the case in one of Vladimir Kramnik's most famous combinations.

Kramnik-Kasparov
Zurich 2001



White to play

Black has just moved his rook from d8 to d4. He is preparing ...♖hd8, which would give him a solid, coordinated game. But for the moment Black's king is slightly insecure and his queen's workload is heavy. White instinctively felt there should be a combination.

1 ♗xa6

There are two short branches to this tree: 1...♕xa6 2 ♖xd4 and 1...♗xa6 2 ♘c6+ both lose the Exchange. The third branch is much longer.

1 ... ♖xd1

2 ♖xd1 ♗xa6

White has a winning attack after 2...♕xa6 3 ♕xb4+ and 4 ♖d6.

3 ♕xb4+!

When he began to analyze 1 ♗xa6, White looked at the forcing 3 ♘c6+ but reached a dead end after 3...♕xc6 4 ♕xb4+ ♔e8. When he backed up and spotted 3 ♕xb4+! he knew he was on to something.

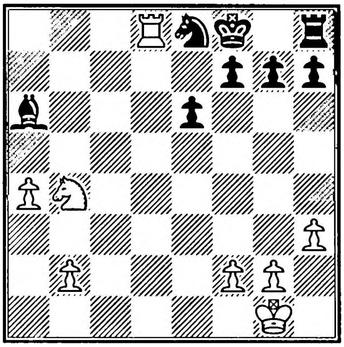
3 ... ♕xb4

4 ♘c6+ ♔f8

Not 4...♔e8 5 ♖d8 mate.

5 ♖d8+! ♘e8

6 ♘xb4



The forcing moves are over. White correctly looked one move further and saw that after 6...♗b7 7 a5 Black would have to give up material to stop the a-pawn. The outcome is much less clear after 6...♗c4!.

But the issue became moot after Black replied 6...♗e2. His bishop was virtually trapped following 7 f3 and was lost after 7...h5 8 b3! ♖h6 9 ♔f2. Black resigned four moves later.

In *New in Chess* White admitted, "I felt no wish to look for something else" after analyzing 1 ♗xa6!?. But he had to concede that 1 ♘c4! would have won more easily, since 1...♕c5 allows 2 ♘e3, threatening ♖xc5 or ♘f5+. Other queen moves permit a powerful 2 ♕xb4+. White liked his priority move so much he never considered a second (much better) candidate.

In the vast majority of cases when there is a leading candidate, it won't be dramatic like 1 ♗xa6. And when you analyze its consequences it will turn out to somewhere between a moderately good move and a just plain bad one. When you follow this thinking model, three paths are likely:

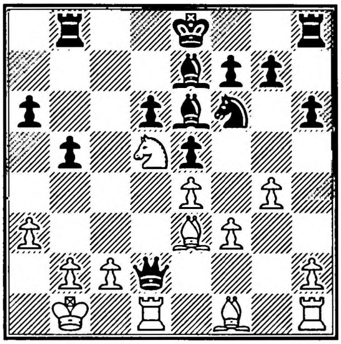
(a) If the candidate exceeds your expectations, you might not look much further. You can just play the move on the board.

(b) If, on the other hand, analysis indicates the candidate doesn't do the job...well, you simply turn to a second candidate, even if a second candidate hadn't occurred to you at that point.

(c) If the analysis shows the first candidate is reasonable but you're not overwhelmed by it, there's a decision to be made. In extreme cases, such as bad time pressure, you can stop there and play it. But in most cases it pays to follow the traditional advice, attributed to Emanuel Lasker among others. Once you've found a good move, look for a better one.

This applies even in relatively simple positions when your move seems automatic. Both players in the next example turned to a second candidate only after the natural one seemed less than satisfactory.

Ivanchuk-Anand
Linares 1992



White to play

White had offered a trade of queens by moving his knight from c3 to d5, and Black complied with ...♕ (on a5) xd2. The automatic move here is 1 ♖xd2. But White had already evaluated 1 ♖xd2 ♘xd5! 3 exd5 ♗d7 as being slightly worse for him because he may get stuck with a bad light-squared bishop and inferior pawn structure. He looked for a way to avoid ...♘xd5.

1 ♘xf6+

Again there is a natural reply, 1...♗xf6. Black almost played it instantly because the only alternative, 1...gxf6, violates general principles. But when he analyzed 1...♗xf6 and saw how well White is doing after 2 ♖xd2 ♔e7 3 h4, he began to have second thoughts.

1 ... gxf6!

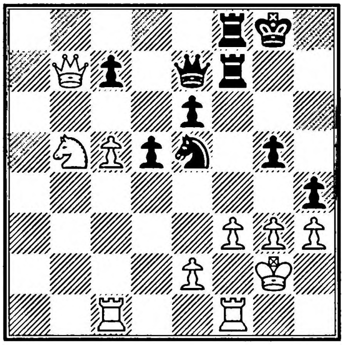
Both players were surprised by how good this turned out to be.

2 ♖xd2 h5

And this is the reason. White can't defend his g-pawn easily (3 h3? hxg4 4 fxg4 ♗xg4 or 3 ♗e2 hxg4 4 fxg4 ♖h3 with pressure). Nor can he push it to g5, thanks to 1...gxf6. And trading the g-pawn off will create problems for his isolated h-pawn (3 gxh5 ♖xh5). Because Black took the time to look for a better move he found 1...gxf6, obtained a strong ending and eventually won.

The hardest choices for the player who prioritizes will arise in the (c) situation when the first candidate he examines turns out to be good enough to ensure an edge. Even though there may be several alternatives worth considering he will be tempted to take the first advantageous path he sees.

Korchnoi-Adams
New York 1996



White to play

White's king is endangered, and keeping matters closed with 1 g4 would allow Black a pleasant choice between 1...♕f6 followed by ...♕f4-g3+ and 1...♘c4 followed by ...♘e3+.

1 gxh4

Here the path appeared clear to Black.

1 ... ♖g7

This move is especially attractive because it contains a tactical point White may have missed. If White moves his king Black doesn't have to play 2...gxh4, which opens some lines of attack but closes others.

2 ♔h1 g4

This way he threatens a strong 3...♕xh4.

3 ♕xc7!

Black assumed that he would easily win the endgame once he was a piece ahead. But after 3...♕xc7 4 ♘xc7 ♖xc7 5 hxg4 White had excellent chances of drawing.

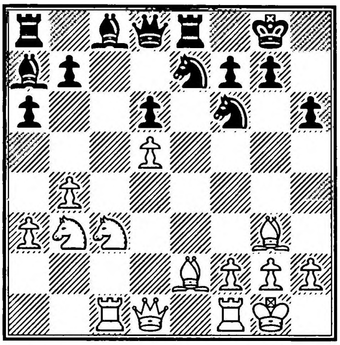
Black made two errors. One was misevaluating 3 ♕xc7. But the other, equally important mistake was failing to look for candidates stronger than 1...♖g7. He admitted there were three attractive alternatives, 1...♘g6, 1...♖h7 and 1...gxh4 – yet he didn't considered any of them. This likely cost him a faster win, e.g., 1...♘g6 2 ♔h1 ♘xh4 3 ♖g1 ♘g6 and ...♖h7/...♘f4.

The priority method works best in the hands of players who have good intuition, and that is why many grandmasters rely on it. It streamlines the selection process and enables a player to budget his time. If your first candidate is complicated, this method allows you to devote disproportionate attention to it – a luxury you're not allowed if you try to consider four candidates equally.

But that's the good news. There are also serious problems with prioritizing. You can find yourself emotionally committed to the first candidate and unwilling to let go of it. By the time you reluctantly turn to a second, and possibly a third, candidate you aren't really comparing their virtues and drawbacks. You are becoming desperate in the search for that elusive "right" move.

Gligoric-Short

BBC Master Game 1981



White to play

Black's last move, retreating a knight from g6 to e7, surprised White. He quickly determined that Black was ready to take twice on d5. But a bit of analysis showed him that wasn't a danger yet. White settled on what he called "the most ambitious move," anticipating ...♘f5xg3.

1 h3

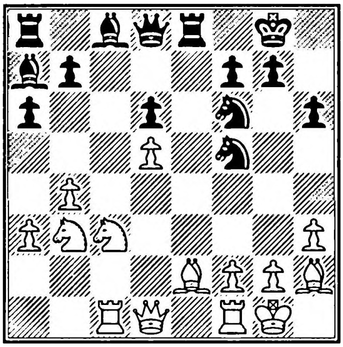
Black's immediate reaction was to wonder aloud "Has he blundered?" (The BBC "Master Game" was a series of videotaped tournaments in which the players tried to recreate their thoughts immediately after the game.)

He calculated 1...♘exd5 2 ♘xd5 ♘xd5 3 ♕xd5 ♖xe2 and evaluated the result as good for him. But when he rechecked his analysis Black realized this wasn't the worst case. White can regain the pawn favorably with 3 ♗f3!, instead of 3 ♕xd5.

1 ... ♘f5

2 ♗h2

A priority move. White didn't consider anything else.



Black had a tougher choice. General principles suggest Black should complete his development. But the down-side to 2...♗d7 is that his b-pawn is hanging after 3 ♘a5.

He quickly calculated 3...♖c8 4 ♘xb7 and then the forcing sequence, 4...♕b6 5 ♘a5 ♘e3! 6 fxe3 ♕xe3+. After 7...♖xc3 Black seemed to have the advantage. He didn't feel he had to look any further.

2 ... ♗d7

White began by examining what he called "a normal move," 3 ♗d3. That allows him to attack the only vulnerable Black piece, the f5-knight, with 4 ♕f3. But he realized he would have to find a good answer to 4...♘d4 or 4...♘h4. When none suggested itself, he shifted his attention to his second candidate.

3 ♘a5

White decided this was superior because Black would have to commit a piece (...♖b8) to the defense of the b-pawn.

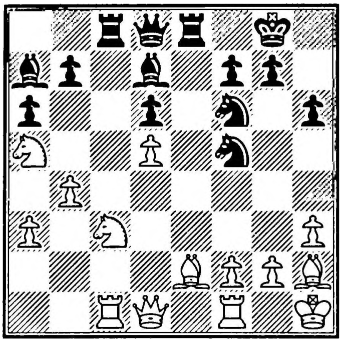
3 ... ♖c8

This surprised White and he began to calculate 4 ♘xb7. He soon saw the same tactical idea that Black had spotted earlier (4...♕b6 and 5...♘e3). The message was clear to him – 4 ♘xb7 was bad.

White turned to his second candidate, 4 ♗d3. But he noticed that 4...♘e3 could be played immediately (5 fxe3 ♗xe3+ 6 ♔h1 ♗xc1 7 ♕xc1 ♘xd5!). This was turning out to be harder than he thought.

That led White to consider a third candidate, 4 ♘c4, which would stop the ...♘e3 tricks. But he realized 4 ♘c4 was inconsistent with his previous move and probably untrustworthy. Finally, he noticed another way of taking the tactics out of ...♘e3.

4 ♔h1?



This puts an end to combinations involving a check on the a7-g1 diagonal. But 4 ♔h1 has a downside. It removes some protection of f2, and Black soon focused on 4...♖xc3 5 ♖xc3 ♘e4, threatening the rook and ...♘xf2+.

Then he saw the defense 6 ♖f3, after which the attempt to exploit it, 6...♘d4, gets complicated. "I can't really analyze that" was Black's pragmatic reaction. He looked for "anything simpler."

4 ... ♗d4!

The knight can't be defended on c3 (5 ♕d2 ♗xc3 6 ♖xc3 ♖xc3 7 ♕xc3 ♖xe2) and has no good escape square (5 ♘a4 ♗xa4 6 ♕xa4 ♖xe2). Black won after 5 ♘a2 ♖xc1 6 ♘xc1 ♘e4, e.g. 7 ♔g1 ♕h4 8 ♕e1 ♘fg3!.

Adding it up we find that the two players went ahead and played their priority (first) candidate on four of the seven opportunities since 1 h3. Black rejected it at move one – because analysis showed 1...♘exd5 would have favored White. He also rejected it at move four – because the analysis of 4...♖xc3 became too complex.

What proved decisive was White's quandary before the last diagram. He not only rejected his first but also his second and third candidates – and paid the price. (In fact, White's best may be the line that both players dismissed – 4 ♘xb7 ♕b6 5 ♘a5 ♘e3 6 fxe3 ♕xe3+ 7 ♔h1 ♖xc3 and now 8 ♖xc3 ♕xc3 9 ♘b7 with good chances.)

It should be clear that prioritizing can be very efficient in some positions but also unwieldy in others. White would have done better before the last diagram if he had followed the second decision-making model.

THINKING LIKE A KOTOV

Alexander Kotov, in *Think Like a Grandmaster*, ridiculed the haphazard approaches to move selection that he saw in the Soviet Union. He recommended a strict thinking regimen:

(a) As soon as it's your move you must identify all reasonable candidates.

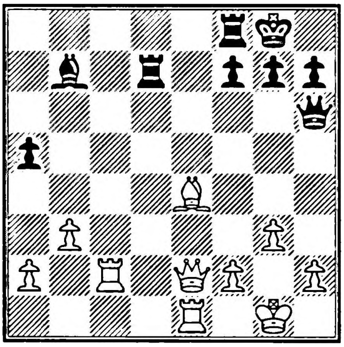
(b) Each candidate should be analyzed in turn, making sure to examine all of your opponent's replies that "can be logically considered."

(c) Each tree branch should be analyzed once and only once.

(d) Finally, you pick the candidate that best passes the analysis test.

This sounds very elaborate. But in a simple position it will usually result in selecting the same candidate as the priority model. In the last example White would look at the position after 1...♘f5 and, following Kotov, quickly realize that 2 ♗h2 is the only good move because his analysis of all trees that allow ...♘xg3 is good for Black. The differences between Kotov and prioritizing become evident in positions where no candidate stands out.

Gulko-H. Olafsson
Reykjavik 1996



Black to play

White is a pawn ahead and looking to trade pieces. He doesn't have to worry about 1...♖e8 because of his own tricks, 2 ♗xb7! ♖xe2 3 ♖c8+ and mates. But Black can do better with:

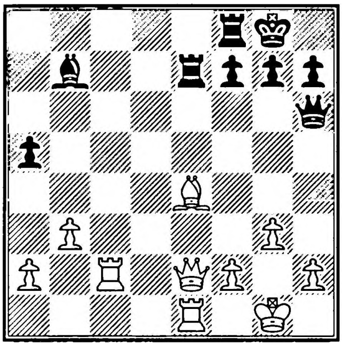
1 ... ♖e7

White might identify five or six candidates – the various queen moves, the combination 2 ♗xh7+/ 3 ♕xe7 and the queen sacrifice 2 ♗xb7.

Players who prioritize would likely begin with the combination because it's forcing. But their analysis would be discouraging because White's advantage remains one pawn. They might turn to the next most-forcing move, 2 ♗xb7, and then 2...♖xe2 3 ♖cxe2. But it is very difficult to conclude that ♖+♗+♙-vs.-♕ is an improvement over the diagram.

Other players might employ a process of elimination. They would begin by discarding 2 ♕g4?? as a blunder (2...f5) and 2 ♕f3? because it allows 2...♖xe4! (3 ♖xe4 ♕g6 4 ♖ce2 f5). They could also reject 2 ♕c4? because of another tactical problem, 2...♖fe8 3 ♖ce2 ♗a6. But then they might be stumped when they try to eliminate one of the finalists, 2 ♕d3 and 2 ♗xh7+.

However a graduate of the Soviet school, like White in this game, might make a mental list of all reasonable candidates a la Kotov. He would evaluate the blunders as blunders. After considerable analysis he would see that 2 ♕d3! is good and might be enough to win.



2 ♗xh7+!

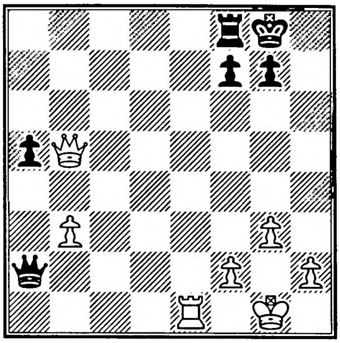
An advantage of Kotov's method is that it recognizes a fact of life that prioritizing doesn't: In good positions there is often more than one good move. White preferred this move because it gives him what he regarded as a clearer winning plan.

2 ... ♕xh7

3 ♕xe7 ♕xc2

4 ♕xb7 ♕xa2

5 ♕b5

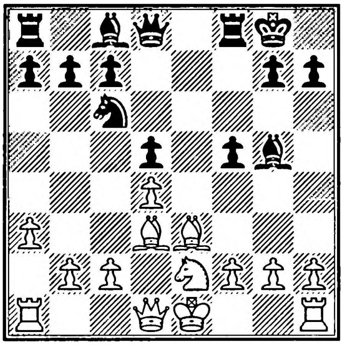


White's plan is to trade rooks and penetrate with his king. From experience he knew that the easiest pawn-up endings to win, apart from pure king and pawn endings, are queen endings, and he proceeded to win this one.

TACTICAL FATIGUE

Whenever you find yourself looking at a second or third candidate – because your priority move doesn't work or because you're following Kotov religiously – there is a danger of overlooking a simple enemy tactic. The reason for this is something we mentioned earlier: The longer you study a position *the less you may see tactically.* Even one-movers that you would spot immediately when analyzing a move as your first candidate can elude you if it is your second or third candidate.

Dvoretsky-Vaganian
Soviet Championship 1974



White to play

In response to ...♗g5, White went into a big think. He considered 1 ♕d2 and the worst-case reply 1...♗xe3. Thanks to excellent evaluation skills, he realized 2 fxe3! would be very good for him. Black is stuck with a bad bishop and White can continue 3 0-0-0 followed by an attack on the f5-pawn or the d-pawn (♘f4, h2-h4 and ♗e2-f3).

He also analyzed a second candidate, 1 ♗xg5 because it seems to launch a stronger plan. After 1...♕xg5 White can play 2 f4 and follow up with ♘g1-f3-e5!. "After a lot of hesitation I chose the latter line," he wrote.

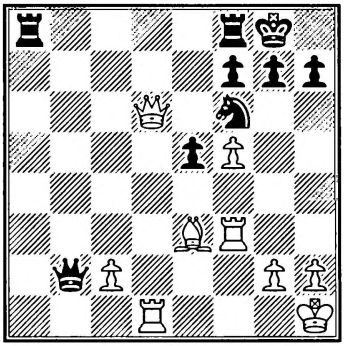
1 ♗xg5? ♕xg5

Only now did White realize that 2 f4?? allows 2...♕xg2!.

As a result he had to choose between the meek 2 g3 and risky 2 0-0 f4!. Black soon had the upper hand (2 g3 f4 3 ♕d2 ♗g4 4 0-0-0 ♕f6 5 c3 ♘a5 or 3 ♘xf4 ♖e8+ 4 ♗e2 ♖e4 5 c3 ♗g4).

Tactical fatigue increases with each new candidate you consider in a given position. By the time you turn to a fourth you are highly susceptible to a simple oversight.

Nunn-Hartston
BBC Master Game 1976



White to play

White thought he was better because of his kingside chances. The one target that he has more pieces to attack than Black has to defend is g7. White began by considering 1 ♖g3 but quickly saw that it allows a winning knight fork on e4.

His second candidate was 1 ♗h6, with ideas such as 2 ♖g3, 2 ♗xg7 or 2 ♕xf6! (2...gxf6 3 ♖g3+ and mates). But Black has defenses such as 1...♘e8.

Perhaps the best policy is completely different – the luft-making 1 h3, White thought. But that fails to prevent 1...♕xc2. In the end he chose a fourth candidate, which he said “looks plausible.”

1 ♗g5??

It contains a threat, 2 ♗xf6 gxf6 3 ♖g3+ and mates. However:

1 ... ♘e4!

“I completely overlooked that move!” White said. He resigned after 2 ♕e7 ♖fe8 3 ♗c1 ♕xc2 4 ♕d7 ♘f2+ 5 ♖xf2 ♕xf2 6 h3 h6 7 ♔h2 ♖ad8.

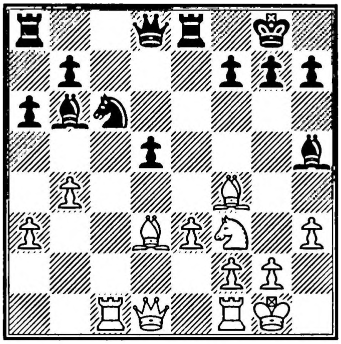
You might blame White’s defeat on runaway expectations. (Some computers don’t think much of White’s position and prefer the super-passive 1 ♖c1.). But the real culprit was diminished tactical sight.

KOTOV FLAWS

Another problem with Kotov’s regimen is that it’s an ideal that is rarely realized. Non-grandmasters can’t perform the extensive analysis required and even GMs frequently find it impossible. Kotov’s insistence that each branch should be examined only once is simply unrealistic. Every player needs to recheck his analysis when making a major decision.

Also, Kotov’s claim that you are “obliged to examine all the candidate moves” in a position indicates that it is easy to identify them. But “candidate” can be defined narrowly to include one or two moves or broadly to mean seven or eight. How many moves would you think of as candidates in the following?

Leko-Kramnik
World Championship
(Dannemann) match 2004



White to play

You might start with the forcing 1 g4. But 1 ♗e2, to free White’s knight or queen to move (2 ♕b3 and ♖fd1, for example) is a worthwhile alternative.

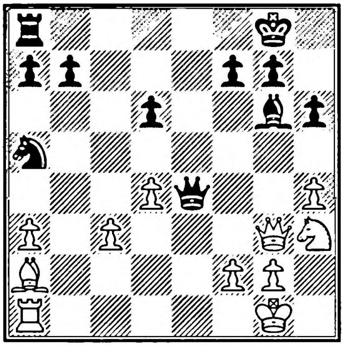
So is 1 ♖c2. That might not occur to many players but it contains a good idea, 2 ♖d2, followed by ♗c2-b3 to pressure the d-pawn.

Few humans would give more than a few seconds’ attention to the defensive 1 ♖e1 but some computers consider it best. And finally, there is the move White chose in this game, the combinational 1 ♗xa6 (1...♖xa6 2 b5).

Depending on how you look at it, the proper number of candidates in the position was two, three, four or even five. Figuring out how many trees you would have to explore per Kotov is at best a guess here.

In practice, masters only look at more than two candidates when their level of expectation tells them to. Here's a very rare example when it paid to keep looking as far as the sixth candidate.

Grischuk-Adams
Chaldiki 2002



Black to play

White has just retreated the attacked bishop from c4.

1 ... ♕d3

But he overlooked this way of exploiting his last move. What now?

(a) The first moves that catch the eye are captures. But the queen trade (2 ♕xd3 ♗xd3) is unsatisfactory because Black's minor pieces are as good as White's, e.g. 3 ♘f4 ♗c4.

(b) A case can be made for grabbing the d-pawn. It avoids an endgame and leaves the queen well placed on d6. But after 2 ♕xd6 ♕xc3 White's attacked rook would have no good square except f1 (3 ♖d1? ♕c2).

(c) This suggests White's best is to allow ...♕xg3. There are aggressive moves that do that, such as 2 ♘f4 or 2 ♗d5 but they don't result in much (2 ♘f4 ♕xg3 3 fxg3 ♗f5).

(d) Having exhausted the aggressive candidates, White looks at 2 ♖e1, a general principle move. But 2 ♖e1 ♕d2 3 ♕xg6 ♕xe1+ 4 ♔h2 ♖f8 is unsound.

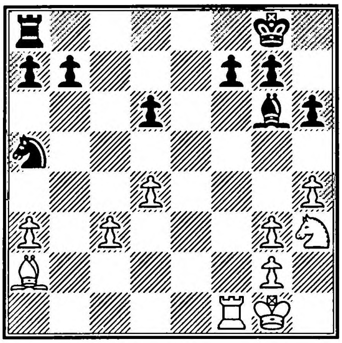
2 ♖f1!

Even Kotov might not have considered this to be a candidate. Yet it is the best move. The rook is protected and this means 2...♖e8 or 2...♖c8 would allow White to safely take on d6, e.g. 3 ♕xd6 ♕xc3? 4 ♕xg6.

2 ... ♕xg3

3 fxg3

The clinching point is that the rook is now on a half-open file.



3 ... ♖c8?

4 h5!

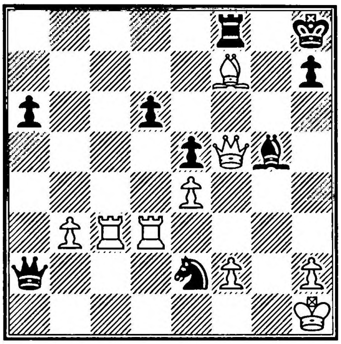
Since 4...♗xh5 5 ♖f5 costs a piece Black played 4...♗d3, after which 5 ♗xf7+ would have won.

White certainly wouldn't have considered 2 ♖f1! as a priority move, nor would many players have found it through Kotov's method. But you would find 1 ♖f1 eventually if you followed the third thinking model, process of elimination.

ELIMINATION

Life regularly presents us with candidate moves: Buy, sell or do nothing? Raise, fold or call? Vanilla, chocolate or macadamia-nut-chocolate-crunch? Rather than try to evaluate the merits of each choice, we often try to find their faults. We eliminate the weakest, one by one, until we're left with the most viable. The same process can be used at the chessboard.

Mena Crespo-Cantillo
Camaguey 2003



White to play

White seems to have half a dozen killers at his disposal. But Black's tactics come first, e.g. 1 ♕xg5 ♕a1+ 2 ♔g2 ♕g1+ or 1 ♖h3 ♕a1+ 2 ♔g2 ♕g1+ 3 ♔f3 ♘d4 mate.

1 ♖c1!

A remarkable move that closes the vulnerable first rank and demands a very exact reply. Let's imagine how Black can reason:

"The first thing that occurs to me is 1...♗xc1. But that allows immediate mate, 2 ♕f6. Clearly this won't do.

"What about 1...♘xc1 ? Let's see, he can threaten mate on h7 with 2 ♖h3. That looks strong because 2...♖xf7 allows 3 ♖xh7+! ♖xh7

4 ♕f8 mate. The only other defense, 2...h6, permits a different sacrifice, 3 ♖xh6+! ♗xh6 4 ♕f6+ ♔h7 5 ♕g6+ and 6 ♕xh6 mate.

"That eliminates two candidates. What's left? I could try to anticipate ♖h3 with 1...♖xf7. But that allows mate after to 2 ♖c8+. There has to be something else."

1 ... h6?

This also anticipates 2 ♖h3 but:

2 ♖xd6!

White threatens 3 ♖xh6+!. There was no reprieve now, ...

2 ... ♘xc1

3 ♖xh6+! ♗xh6

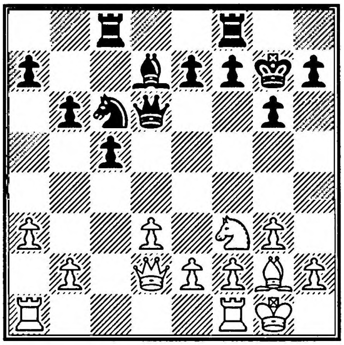
4 ♕f6+

White mates (4...♔h7 5 ♕g6+ ♔h8 6 ♕xh6 or 4...♗g7 5 ♕h4+ ♗h6 6 ♕xh6).

Black should have carried the process further. He should have found the flaw in 1...h6 and rejected it. Then he would have been forced to analyze a fifth possibility, 1...♗h6!. It looks suspicious – but it's the only one left. This might have saved the day since neither 2 ♖xd6 ♗g7! nor 2 ♖h3 ♕d2 is clear. Only 2 ♖f1!, a candidate few players would consider, seems to beat 1...♗h6!.

Process of elimination also works when some of the choices are bad for positional reasons.

Larsen-Miles
BBC Master Game 1978



White to play

1 b4

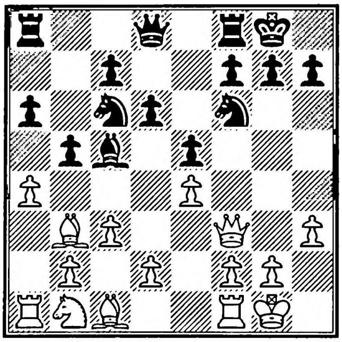
This positionally desirable move is justified by branches such as 1...cxb4 2 axb4 ♘xb4 3 ♖xa7 ♖c2 4 ♖xd7!, which wins material.

1 ... ♘d4

Black gave a long explanation for this move but the key was – "Anyway, I can't play anything else now." He didn't want to open the a-file for White ("Taking the pawn is terrible"). Nor did he want to allow 2 bxc5 when it would isolate his pawn (2...bxc5) or cost him time (2...♕xc5 3 ♖fc1). After 1...♘d4! Black can retake on c5 with his rook and prepare to double rooks on the c-file.

Process of elimination also helps in selecting a plan; You can reject alternatives because of strategic weaknesses or tactical problems.

Kasparov-Anand
Wijk aan Zee 2001



White to play

1 a5

This gains queenside space and stops a typical idea in such positions, ...♘a5. White can now prepare to expand with b2-b4 and c3-c4.

Black needs an active plan of his own. He began by looking at 1...b4 to open the b-file. But that would allow White to tie Black's pieces to the defense of the a-pawn with 2 ♗c4!.

Black then considered opening the position in another way, with ...f5. To do that he would like to shift the knights to e7 and d7. But tactical problems develop after 1...♘d7 2 ♗d5! and 1...♘e7 2 ♖d1 followed by 3 d4.

By process of elimination Black chose:

1 ... ♖b8!

This was the one constructive move – preparing 2...♘d7 (3 ♗d5 ♘e7) – that didn't have an obvious drawback.

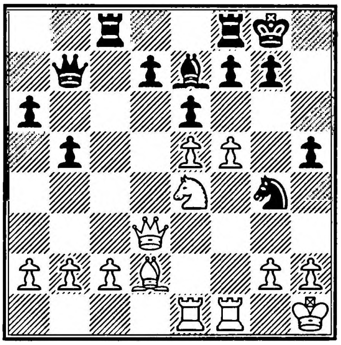
2 d3 ♘d7

And Black had nearly equalized (3 ♗e3 ♔h8 4 ♘d2 ♘e7 and ...f5).

Process of elimination works best when you can easily identify candidates as dubious (1...♘d7 in the last example) or just plain bad (1...♗xc1? and 1...cxb4? in the previous two).

It is less useful when dealing with candidates that are not clearly inferior. Then you may have to rely on your level of expectation to help disqualify candidates.

Xie Jun-Skripchenko
Istanbul 2000



Black to play

Instead of 1...♘xe5 2 ♕g3, which gives White a lot of kingside chances, Black played:

1 ... exf5

She believed that White would quickly reply 2 ♖xf5.

2 ♘g3!

The only reasonable candidates were the recapture on f5 and the various knight moves. White saw that 2 ♖xf5 g6 would give Black counterplay after 3...♕c6. This fails the expectation test because White believed she should stand better than that.

Looking further, White saw that a knight move would threaten 3 h3, since Black's knight has no good retreat. But 2 ♘f2 can be immediately dismissed because it costs material (2...♘xf2+ and 3...♗h4). Secondly, 2 ♘d6 ♗xd6 trades off White's best piece for no immediate benefit. And 2 ♘c3 can be met by 2...♖c5, which stops ♘d5 and attacks the e-pawn.

That left one move, 2 ♘g3. It doesn't have the drawbacks of the other knight moves and it has the benefit of threatening to capture on f5 or h5.

2 ... ♕b6?

On 2...g6 White has a strong 3 h3!. Black should have tried to reach a position similar to 2 ♖xf5 g6 by playing 2...♗h4 and then 3 ♖xf5 g6.

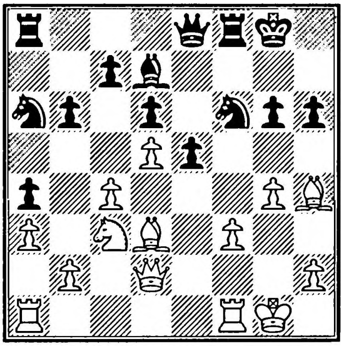
3 ♖e2

Only in the post-mortem was it realized that Black is lost here because of the power of 4 h3, 4 ♘xf5 or 4 ♘xh5. The game went 3...♘h6 4 ♘xh5 ♖c4 5 ♘f4 ♗c5 6 b4 ♗e7 7 ♘d5 ♕e6 and ended with a combination, 8 ♗xh6! gxh6 9 ♖xf5 ♖g4 10 ♖f6! Resigns.

WHEN ELIMINATION FAILS

Process of elimination misfires when you quickly reject a move you shouldn't. Why would you do that? Because you've mislead yourself about how well you stand. If a candidate leads in the worst case to a so-so position – but you've come to believe you have good winning chances – you may find yourself eliminating the best move.

Veingold-Kasparov
Moscow 1979



Black to play

1 ... ♘c5

Black thought his position was improving, especially since he had prevented 2 ♕xh6 (2...♘xd3).

2 ♗c2

After this retreat "I began to overrate my chances," he wrote in his game collection. The revived threat of ♕xh6 limits his choice to four candidates. He could reject two of them on the basis of general principles – 2...h5 is too loosening and 2...♔h7 lines up the king on the diagonal of White's bishop.

That leaves 2...g5 and 2...♔g7. Black calculated the most forcing answer to 2...g5, the bishop sacrifice 3 ♗xg5 hxg5 4 ♕xg5+, to see if it was the worst case. He concluded that White would have perpetual check but no more.

2 ... ♔g7?

Black was right about 3 ♗xg5 being only a draw. But he was wrong about it being the worst case. White has the better position regardless of what Black plays, and he would best meet 2...g5 with 3 ♗f2!. Because of unrealistic expectations Black chose a bad move because it was the one move he hadn't eliminated.

3 ♖ae1!

White threatens a crushing f3-f4xe5, e.g. 3...♕f7 4 f4 exf4 5 ♕xf4 and now the sack line 5...g5 6 ♗xg5 hxg5 7 ♕xg5+ ♔h8 loses to 8 ♖xf6! (8...♕xf6 9 ♕h5+ and mates). Black found a way to stay in the game, 3...♘b3, but eventually lost.

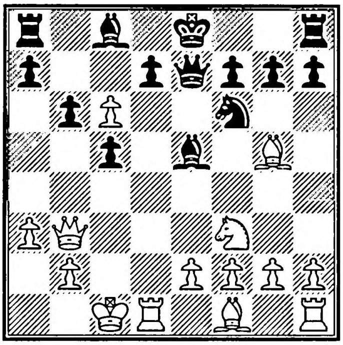
It's true that unfounded optimism like that can doom any of the thinking models. But process of elimination is especially vulnerable because its emphasis is on disposing of some candidates *quickly*. When your position is complex, quickly becomes too quickly.

Process of elimination has to be used selectively. No master relies on it exclusively because the situations in which you can reject all-but-one candidate are not that common. Instead you can apply a modified process of elimination to prune tree branches (such as by eliminating the blunders 2 ♕g4?? and 2 ♕f3? on p.139) and leave yourself with extra time to devote to the more worthy candidates.

BACK AND FORTH

Kotov reserved his greatest scorn for the player who goes back and forth between candidates, not quite rejecting one, not quite accepting another – and wasting his time in fruitless reexamination. But the back-and-forth method can yield the best results in many positions because of the serendipitous nature of analysis. When you analyze one candidate you often come up with insights that you can use to improve your analysis of another candidate.

Seirawan-Timman
Match 1990



White to play

White is looking for a way to inflict damage before Black can castle. He explained his thinking in *Inside Chess*:

(a) He began by rejecting 1 cxd7+ ♗xd7 "on principle: Why help your opponent develop?"

(b) Then he examined another forcing line, 1 ♘xe5 ♕xe5 2 f4, which protects the g5-bishop and attacks the queen.

This works splendidly if Black cooperates (2...♕f5? 3 e4! ♘xe4 4 ♗d3 and wins, e.g. 4...d5 5 ♗xe4 dxe4 6 ♖d8 mate or 4...0-0 5 g4 ♕g6 6 ♖he1). But there was nothing special for White after 2...♕e6!.

(c) He turned to 1 e4. It tries to improve on the flawed second candidate by threatening 2 ♘xe5 ♕xe5 3 f4 ♕e6 4 ♗c4!. And it also prepares ♗b5, possibly in connection with an Exchange sacrifice on d7.

But again there was a simple flaw. By the time you get to a third candidate you've probably exhausted the forcing ones. Here 1 e4 is not at all forcing and after 1...dxc6! White has nothing convincing. Meanwhile his clock continued to run.

Every chess player has found himself in a frustrating situation like this. However, White's time was not wasted. In calculation you not only examine specific sequences of moves but also recurring ideas. For example, if you hadn't thought of 1 e4 at first it might occur to you after you found that 1 ♘xe5 and 2 f4 can be improved with the addition of e2-e4. It was a different tactical idea that suddenly reentered White's thinking.

1 cxd7+!

In the various tree branches White was looking at chances to play cxd7+ and then ♖xd7. Eventually it became clear he needed something else to make it work – not e2-e4 but ♗f4.

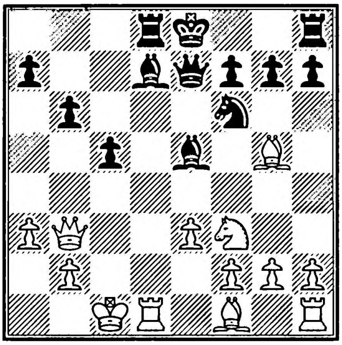
1 ... ♗xd7

2 e3!

This prepares a strong ♗f4. Now 2...0-0 loses a piece to 3 ♘xe5, 4 ♗xf6 and 5 ♖xd7. Also 2...0-0-0 loses to 3 ♗a6+ followed by ♘xe5 and ♗f4.

2 ... ♖d8

White can exploit his opponent's last move after 2...♗c6 3 ♗b5! and 2...♗d6 3 ♗c4 0-0? 4 ♕d3. The text enables Black to meet 3 ♗b5 with 3...♗d6.

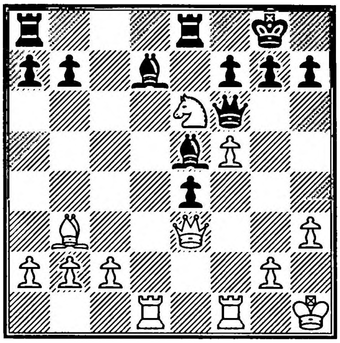


3 ♖xd7!

But this gives White either a lasting initiative (3...♖xd7 4 ♗b5 ♗d6 5 ♖d1 0-0 6 ♗xd7 ♕xd7 7 ♗f4) or an immediate knockout (3...♔xd7 4 ♕a4+! ♔e6 5 ♗c4+ ♔f5 6 ♕c2+). He eventually won because he had gone back to his very first candidate.

Back-and-forth works well when you're debating with yourself about two candidates and your scrutiny of the recurring ideas leads you to a third candidate. For example:

Novopashin-Tal
Soviet Championship 1962



Black to play

By dropping the knight onto e6, White created a very sharp situation. Black sees that 1...fxe6 and 1...♗xe6 are suicidal in view of 2 fxe6, opening up the f-file and the b3-f7 diagonal. Meanwhile his bishop is hanging on d7.

Black's attention was focused on the two bishop moves, to c6 and b5. The latter is more forcing. But after 1...♗b5 2 ♘g5! it is White who has the bigger threats (2...♗xf1 3 ♘xf7 and now 3...♔f8 4 ♖xf1 or 4 ♘g5 are both dangerous).

Black calculated 1...♗c6 much further and found a small edge for himself after 2 ♘g5 ♖e7 3 ♘xe4 ♕h4.

But "I suddenly realized that Black also has a third possibility," he wrote in his game collection.

1 ... ♖e7!

This might have been the priority move to some defenders. It would certainly have been one of the candidates to be considered a la Kotov. But Black examined it because the back-and-forth method had forced him to consider ...♖e7 in the branches of the 1...♗b5 and 1...♗c6 trees. He knew it would be a useful move at some point and eventually realized that point was now.

2 ♘c5

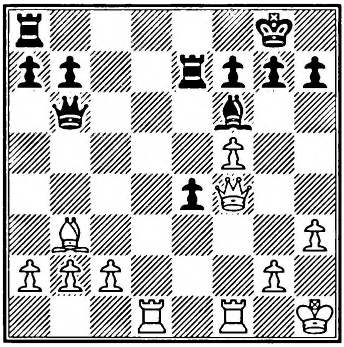
The knight can't remain on e6 forever (2 ♕xe4 ♗c6 and 3...fxe6) and 2 ♘g5 ♕h6 is strong for Black.

2 ... ♕b6

3 ♕g5 ♗f6

4 ♘xd7 ♖xd7

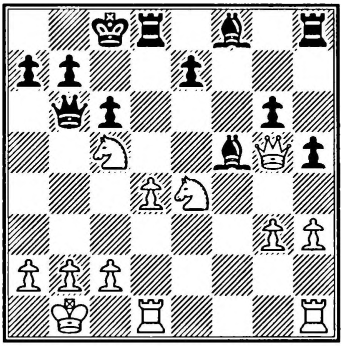
5 ♕f4 ♖e7



The simplified position may seem balanced but Black considered it to be winning for him in view of his passed pawn, superior bishop and secure kingside. The outcome became clearer after 6 ♖fe1 e3 7 c3 h5 8 ♖e2 ♖ae8 9 ♕d6 ♕b5 10 ♕d3 ♕e5 and Black eventually won.

Back-and-forth is, in truth, used much more widely than Kotov. In various books that have detailed how players think about specific test positions, the subjects rarely use anything approaching Kotov. But they often go back and forth between two candidates or use this process to find a third candidate, such as 1...♖e7 in the last example. Here's another case of that.

Belyavsky-Ivanchuk
Linares 1995



Black to play

Black spent considerable time on this promising position:

(a) He first examined 1...♗g7 (a developing move that attacks a pawn) and liked what he saw of 2 ♕xe7 ♗xd4. But when he looked further he thought the knights were better than the bishops after 3 ♘b3 (3...♖he8? 4 ♘d6+).

(b) He turned to 1...♖d5 which threatens 2...♗xe4. But he saw ♘c3 was a strong defense in some lines, e.g. 2 ♕h4 ♗h6 3 ♘c3.

(c) He went back to 1...♗g7 with the idea of going into an ending via 2 ♕xe7 ♕c7 3 ♕xc7+ ♔xc7. Black is temporarily a pawn down but defending the-pawn with 4 c3 allows 4...b6! with advantage to Black. However, he saw problems after 4 ♘g5 because of forks at f7 and e6.

1 ... ♗h6!

Finally he realized that reaching an endgame was his best option – provided that ♘g5 was preempted. If White keeps queens on the board, 2 ♕h4 ♗e3! is bad for him.

2 ♕xe7 ♕c7!

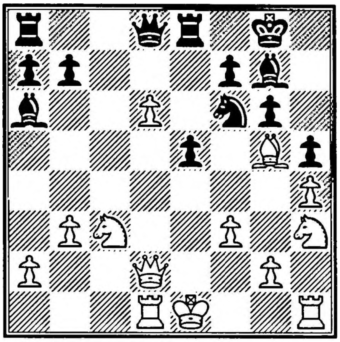
3 ♕xc7+ ♔xc7

Black threatens 4...b6. His bishops proved decisive after 4 ♘c3 ♗e3 and later ...♗f2.

Back-and-forth may also make sense if you find yourself considering a third candidate and your judgment is becoming foggy. You may have forgotten exactly how good or bad your first candidate was. It deserves a fresh look.

Blurry thinking helped cost Vladimir Kramnik a chance at the world championship two years before he won the title.

Kramnik-Shirov
Match 1998



White to play

In what appears to be an excellent position, White began by examining 1 d7. He soon determined that 1...♖f8 2 ♘f2 favors him considerably and 1...♖e7 2 ♘d5 would be even better. The only question about the pawn push was whether he could win if Black gambled on 1...♕xd7 2 ♕xd7 ♘xd7 3 ♖xd7 e4!?, which threatens 4...♗xc3+ and 4...exf3+.

White spent a good deal of time on that tree limb and eventually concluded that 4 ♘xe4 f5 was good for him – but not great.

That's why he turned his attention to 1 ♘f2, which makes 2 d7 a powerful threat because he has greater control of e4. However, 1 ♘f2 is not nearly as forcing as 1 d7 and would allow Black to blockade with 1...♕d7. White considered 2 ♗xf6 ♗xf6 3 ♘d5 and then 3...♗d8 4 ♘e4. But after 4...♔g7 there is no killer.

1 ♘d5?

This was White's third candidate and the error that cost him the match.

1 ... e4!

White missed this sacrifice. But ...e4 should have occurred to him because it is the key idea in the 1 d7 ♕xd7 branch.

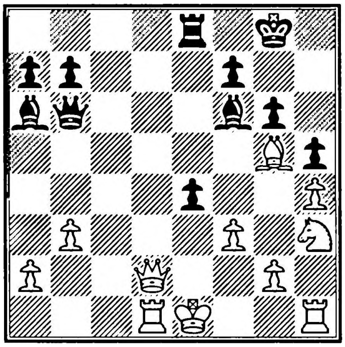
2 ♘xf6+

It's too late for 2 d7 because of 2...exf3+! 3 dxe8(♕)+ ♕xe8+ 4 ♕e3 (4 ♔f2?? ♘e4+ or 4 ♗e3 ♘xd5 5 ♕xd5?? ♕xe3 mate) ♘xd5 5 ♖xd5 ♕c6! with a winning attack in view of 6...♖e8, 6...♕xd5 and 6...fxg2.

2 ... ♗xf6

3 d7 ♕b6!!

4 dxe8(♕)+ ♖xe8



The rook sacrifice turned out to be sound and Black won following 5 ♕e3 ♗xg5 6 ♕xb6 ♗xh4+ 7 ♔d2 axb6.

There is no sure way to protect yourself against strokes of genius such as 3...♕b6!!. But White's main mistake was giving up on 1 d7!. What he should have done, after dismissing 1 ♘f2 as a dead end and examining 1 ♘d5, was to go back to his first candidate, said Kramnik and his game collection co-author Yakov Damsky.

Then "he would have easily established" that in the critical line, 1 d7 ♕xd7 2 ♕xd7 ♘xd7 3 ♖xd7 e4, White has better than 4 ♘xe4. He can play 4 ♘d5! instead (and then 4...exf3+ 5 ♘c7+ or 5 ♔f2 with a big edge).

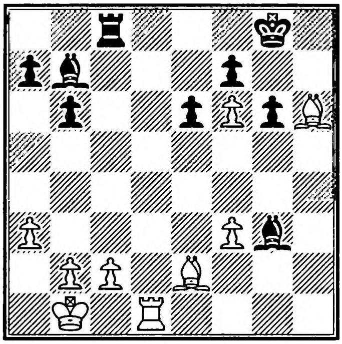
WHEN BACK-AND-FORTH FAILS

By now you shouldn't be surprised to learn that this approach also has serious flaws. Several Soviet-era players, including Anatoly Karpov and Kotov, cited the Buridan's Ass phenomenon in which you lean toward one candidate, then back off and lean toward the other and so on – until your flag falls.

In some of the "how players think" books that were mentioned earlier, the subjects jumped from candidate A to candidate B to candidate C. Their train of thought looked like the rhyme scheme of a very strange poem – A, B, A, C, B, A, B and finally D, the move ultimately chosen.

Even if you have plenty of time, the very practice of switching from one candidate to another can be confusing. You may return to a candidate having forgotten why you didn't like it when you first considered it.

Topalov-Ivanchuk
Las Palmas 1996



White to play

Black has just played his bishop from h2 to g3. White has several good ideas but his eyes naturally turned to the possibility of a forced win with ♖h1 and ♗g7 followed by ♖h8 mate.

White began by looking at 1 ♖h1. He soon spotted a defense, 1...♖c5 2 ♗g7 ♖h5 (and 3 ♖d1 ♖d5). This seemed to be a dead end.

But White didn't want to give up so quickly on a possible checkmate. He turned to a different order of moves, 1 ♗g7 followed by 2 ♖h1. That's when he understood a point of Black's last move, ...♗g3. Black can meet 1 ♗g7 with 1...g5 2 ♖h1 ♗h4, blocking the file.

White can't reply 3 f4?? because of 3...♗xh1. And if he prepares f3-f4 with 3 ♖h2, Black can stop it by means of 3...e5. But his level of expectation was high and after studying the position further he suddenly saw a crushing line.

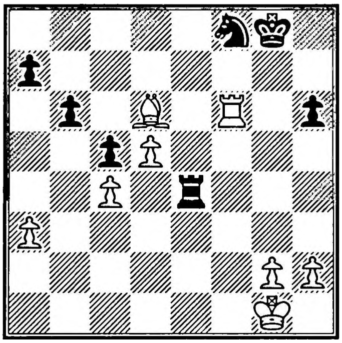
1 ♗g7? g5

And just as suddenly he realized that what he intended, 2 ♖h1 ♗h4 3 ♖h2 and 4 f4, is met by 3...e5!. This was precisely the defense he had already calculated – but forgot.

(The PostScript is that White belatedly went pawn-grabbing with 2 ♖d7 ♗c6 3 ♖xa7, found himself in trouble after 3...♖d8! 4 a4 ♗e5 and 5...♖d2! and lost.)

If the priority method suffers from considering too few candidates and Kotov from too many, back-and-forth is flawed by the confusion that can arise regardless of how many candidates there are. White only had two mating sequences to fret over in the last example but they proved too much when he shifted from one to the other. And if you are shuttling between more than two candidates, watch out.

Seirawan-Adams
Match 1999



Black to play

With five minutes on his clock to make five moves, White was under mild pressure. He could have reached the time control with low-calc moves but felt he could afford to look for a knockout.

1 ... ♘h7

Since White is a pawn up and also has the superior minor piece, he can offer a favorable trade of rooks (2 ♖e6 or 2 ♖f4). Alternatively, he can take on h6 or force matters with a check on g6.

The problem is that all of the ideas look good. For example, it can't be bad to create connected passed kingside pawns with 2 ♖xh6 ♖xc4 3 ♗e7, followed by pushing the d-pawn. But in White's mind it wasn't a clear win.

He considered another way of keeping the knight out of play and preparing d5-d6 – 2 ♖f4 and 3 h4, e.g. 2...♖e3 3 h4 ♖xa3 4 ♗e7 and 5 d6. That also looks good but it's not absolutely convincing.

And he examined 2 ♖e6 ♖xc4 3 ♖e8+ ♔f7 4 ♖e7+, which "also seemed tremendous," he recalled. But by then he was drowning in good ideas, and as his clock got closer to a forfeiture he grabbed at what appeared to be an improved version of 2 ♖xh6.

2 ♖g6+? ♔f7

3 ♖xh6 ♘f6!

Black's knight rejoins the game and threatens to deliver forks at g4 or e4 after ...♖xc4-c1+.

White's easy win is gone. Suffering shell-shock, he was lost in two moves, 4 h3 ♖xc4 5 ♗b8?? ♔g7, since his rook was trapped.

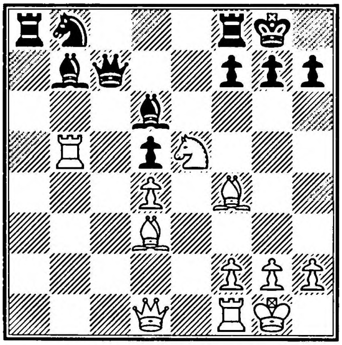
MIXTURE OF MODELS

If each of the four models has benefits and drawbacks, where does that leave the player who wants to improve? The best advice is to use the model that seems most appropriate to the position at hand. When it is likely there is more than one good move, following Kotov will likely work better than elimination, for example. On the other hand, in simpler positions each of the models may produce the best move but prioritizing may do it fastest.

In practice, grandmasters adopt different thinking methods at different points in a game. They may go back and forth on this move but on the next move emulate Kotov. And on the following turn they might make their choice by elimination. This flexibility helped Kasparov beat the World, as we saw in Chapter 1.

Players also mix elements of the four models in considering a single move. For example, they start with elimination and then attach themselves to a priority move.

Anand-Karpov
Las Palmas 1996



Black to play

White threatens a double attack on b7 and h7, with 1 ♕b1 or 1 ♗xh7+ ♔xh7 2 ♕b1+ and 3 ♖xb7.

1 ... ♗a6

By attacking the rook and leaving the d-pawn hanging, Black is directing his opponent's attention to 2 ♖xd5. White said he spent "a few seconds" on that. But he wasn't certain his extra pawn would be enough to win after a trade of light-squared bishops (2...♗xd3). He eliminated 2 ♖xd5 from consideration.

2 ♗xh7+!

"Then I saw ♗xh7+ and didn't waste any more time on ♖xd5," White wrote in his game collection. He didn't look at anything else. He just worked out the branches that stemmed from 2...♔xh7 3 ♕h5+ ♔g8 4 ♖b3 followed by 5 ♖h3 or 5 ♖g3. The game ended soon after 4...♗xe5? 5 ♖h3 f6 6 dxe5 ♕e7 7 ♕h7+ ♔f7 9 ♖g3.

Each of the four thinking models can be used to find good moves and, ideally the best move. But is there always a best move to find? And if there isn't, what's the point of the selection process? The answers take some explaining.

8: Reality Check

Time for a reality check. Before we go any further, it's important to recall what your task is when selecting a move and what it is not.

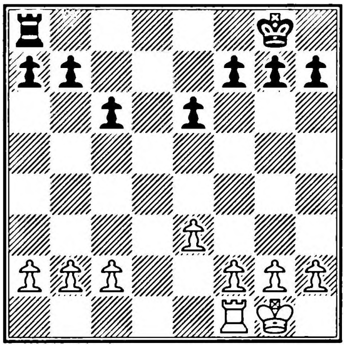
It is not to discover "the truth" about a position and all its subtle nuances. It is simply to find a move you can play with some degree of confidence and hope that it is best. Specifically:

Your task is not to predict the future. It's often very difficult, if not impossible, to guess what your opponent's next move is going to be, let alone forecast the next two or three moves.

You may not be able to play a move with absolute confidence. Some candidates are virtually impossible to calculate or evaluate accurately. You just play them.

You may not be able to find the best move – because it doesn't exist. Amateurs are often told to look for the one move that stands above all others. "However good your position you cannot afford a second-best move," wrote Imre Koenig, expressing the view of many other authors. Yet more often than not, there is no move that fits the description of "best."

Trying to live up to some unrealistic ideal of move selection is frustrating. You should keep the process in perspective. The reason you explore consequences of a candidate is to decide whether it is worth playing. If you're already certain this move is the most worthy, it's a waste of time to try to predict the future.



White to play

In this position the "best move" not only exists but is obvious. After

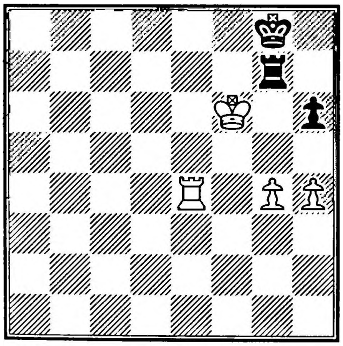
1 ♖d1! White cannot be prevented from playing 2 ♖d7, giving himself a powerful rook on the seventh rank.

Is that enough to win? Maybe yes, maybe no. Even if Black loses a pawn, the outcome is far from settled. Moreover, it's not clear what Black's best defense is after, say, 1 ♖d1 ♔f8 2 ♖d7 ♖b8 3 ♔f1.

But none of that matters. It isn't worth White's time trying to figure out the worst-case scenario here. He should play 1 ♖d1 quickly and get his opponent's clock moving.

That position, similar to one cited by chess teacher Dan Heisman, was composed. But the basic situation is genuine. It happens in real games to real people:

Kramnik-Topalov
World Championship (FIDE)
tournament 1999



White to play

In a very drawish ending, Black has just made a horrible move of his rook from a7.

1 ♖e8+ ♔h7

2 ♖e7

To play this White may have calculated several moves further. But calculation of more than one move wasn't necessary.

2 ... ♖xe7

3 ♔xe7

It's not that the consequences of 2 ♖e7 are certain. They aren't. With an extra pawn in a king-and-pawn endgame, it is likely but far from guaranteed that White is winning.

The reason calculation was unnecessary is that the moves White chose have to be better than what would happen if he had played something else at moves one and two, e.g. 1 ♖a4 ♖b7 or 1 g5 hxg5 2 hxg5 ♖f7+ with easy draws).

3 ... ♔g7

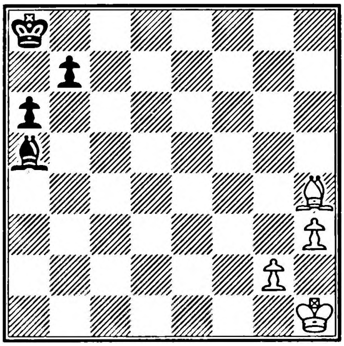
4 h5 Resigns

White wins the h-pawn by opposition (4...♔g8 5 ♔f6 ♔h7 6 ♔f7).

One additional example, this time of pure symmetry. If it were White's turn he would jump at the opportunity to seize the board's best diagonal (1 ♗f6!). That would control h8, and therefore clear the way for promotion of his h-pawn.

And it also controls a1, blocking promotion of Black's a-pawn.

Spisak-Macieja
Polish Championship 1994



Black to move

Unfortunately for him, it's Black's move.

1 ... ♗c3!

Does this clinch a win? Black may not be able to calculate far enough to know. (The outcome only becomes clear after move 16.) But again – that doesn't matter. The bishop move has to be played because the diagonal is so crucial.

2 ♔g1

This puts the White king "in the square" of the b-pawn, the more dangerous one. The a-pawn's advance can at least be delayed by the White bishop.

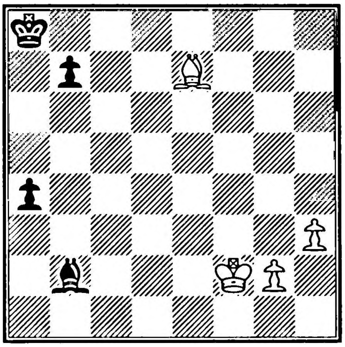
2 ... a5

3 ♗e7

White has to be able to give up his bishop when the pawn reaches a3 or the pawn will queen.

3 ... a4

4 ♔f2 ♗b2!

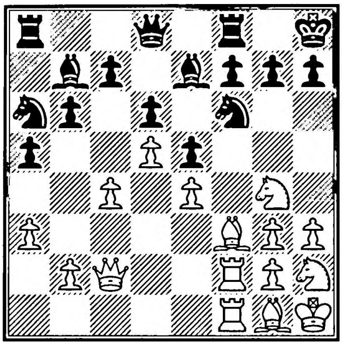


Thanks to control of the diagonal, Black must win the bishop. By the time he had to surrender his own bishop – 5 g4 a3 6 ♗xa3 ♗xa3 7 g5 b5 8 h4 (or 8 g6 ♗f8) ♔b7 9 ♔f3 ♗e7 10 ♔e4 b4 11 g6 ♗f8 12 h5 ♔c6 13 ♔f5 b3 14 ♔f6 b2 15 g7 ♗xg7+ 16 ♔xg7 – he was about to queen.

Of course, Black cannot be expected to see all that. But that's the point. Your task is to try to find the best available move, not forecast next week's weather.

MEANS AND ENDS

Improving players learn the various shortcuts of move selection that we've discussed. But they often confuse themselves by putting so much emphasis on the shortcuts that it overshadows the virtues of the candidates.

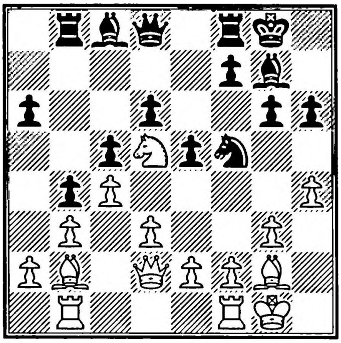


Black to play

For example, a novice can become so attached to general principles that he won't play 1...♘h5 because it moves a knight to the side of the board. Instead, he picks a more principled move such as 1...♘c5?? – rather than delivering mate with 1...♘h5! and 2...♘xg3.

The cues cited in Chapters 2 and 3 are merely means towards an end, a good candidate. When you find a really attractive candidate, don't worry about whether it conflicts with one of the cues.

Larsen-Campos-Lopez
San Antonio 1972



White to play

White played ♖ab1 in the opening for various strategic and tactical reasons. Now at the start of a favorable middlegame he played ...

1 ♖a1

...and gave it two exclamation points. White will open at least part of the a-file and take aim at Black's queenside pawns.

1 ... a5

2 a3 bxa3?

3 ♖xa3

White has a major edge and he coasted to victory after 3...♗e6 4 ♗c3 ♗xd5 5 ♗xd5 ♘d4 6 e3 ♖xb3 7 ♖xb3 ♘xb3 8 ♕a2 ♕b6 9 ♖b1 ♖b8 10 ♗xa5!.

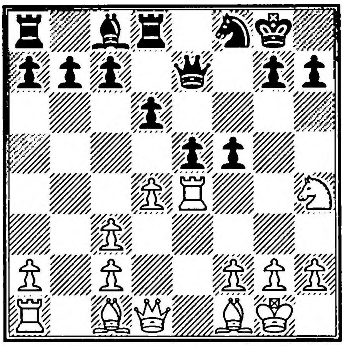
He chose 1 ♖a1 (and 2 a3) because his positional advantage could be exploited best if there were action on both wings, beginning with the queenside. He readily acknowledged that 1 ♖a1 was inconsistent in view of the earlier ♖ab1. But he added, "Making the best move in the position does not necessarily admit anything."

Another means to finding a candidate is intuition. We know you should try to vet the intuitive candidate by analysis. Yet we also know that some candidates are impossible to calculate with accuracy. What do you do if your instincts tell you "Go!" but your analysis says "I'm not sure"?

This is a problem that has hobbled world-class players as well. After playing more than 20 games against Lev Polugayevsky, Boris Spassky diagnosed Polugayevsky's major failing: He relied on calculation to be the final arbiter when faced with difficult choices. Polugayevsky wanted to analyze a candidate until he could confirm his positional feeling about it. "This is not always possible in chess," Spassky said.

In Chapter 10 we'll get into the balancing act that a player must perform when trying to deal with complications that are both unclear and risky. But for the moment:

Gallagher-Sorokin
Calcutta 2001



White to play

Black sacrificed a piece on e4 but his last move, ...f5, assures him of regaining it.

A novice might study this position and say 1 ♘xf5 must be the only good move. A stronger amateur might analyze alternatives, such as 1 ♖c1 ♛xh4. But once the forcing moves are over (2 dxc5 dxe5 3 ♗c4+ ♔h8) he would consider it a dead end. Both players would be amazed that a grandmaster thought 25 minutes before playing 1 ♘xf5.

White explained in *British Chess Magazine* why he did it. He wanted to play a forcing line, 1 ♗c4+ ♔h8 2 ♛h5!?!. The worst case has to be 2...fxe4 which leaves White an Exchange down. His only chance must be 3 ♗g5.

The upshot is that White has a powerful position after 3...♕d7 4 ♗f7! but no immediate threats.

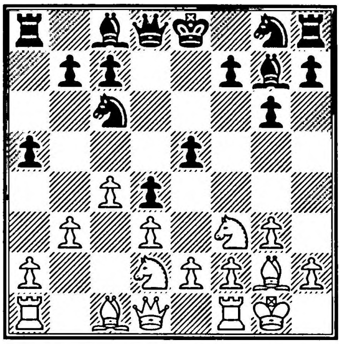
White may be winning if he can execute the maneuver ♖e1-e3-h3. But at the board it was impossible to calculate the consequences of 3 ♗g5 to any degree of accuracy.

This sacrifice is the kind you make on the basis of intuition or not at all. After exploring the 2 ♕h5 tree you eventually realize the position is beyond calculation and you have to make a decision that seems to be based more on faith than science. Mikhail Tal relied on faith in his intuition when he made some of the greatest sacrifices of all time. After Rashid Nezhmetdinov made another of them, he explained it was primarily intuitive. "To calculate at the board all the probable continuations was, of course, impossible," he wrote.

IMPOSSIBLE VERSUS PRACTICAL

The practical player realizes there are severe limits to what he can calculate at the board. We used to blame the inability to analyze further on the limits of the human mind. Now we know that even with the help of computers, some positions are beyond analysis.

Damljanovic-Seirawan
Belgrade 1991



Black to play

The game is not eight moves old yet Black went into a big think. "I agonized over half an hour on this natural move," he wrote.

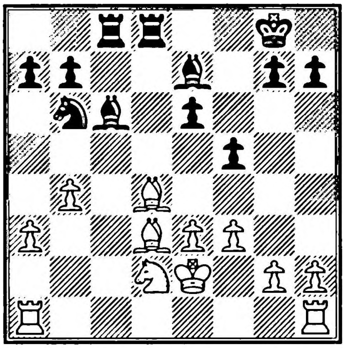
How can a grandmaster spend so much time on such a quiet position? Black explained that he was "so delighted with his position" that he began looking for forcing lines. He invested considerable energy in 1...f5 and then 2 a3 ♘f6 3 ♖b1 0-0 4 b4 axb4 5 axb4 e4 6 dxe4 fxe4 7 ♘g5 e3 8 fxe3. But he eventually concluded that neither 8...♘g4 nor 8...h6 promised enough. He settled for a second candidate.

1 ... ♘ge7

But this is calculation run amok. White simply has too many options in the 1...f5 tree (such as 3 ♕c2 instead of 3 ♖b1 and 4 ♕c2 in place of 4 b4) for Black to begin looking for mate. Seven moves after he reluctantly played 1...♘ge7 Black was in serious time trouble and making oversights.

Remember, you only have to play one move at a time. Players often over-calculate by making demands on themselves far beyond one move. It's true that you should find the worst-case scenario. But you don't have to worry about the best case by searching for your own moves further up a tree that you've already decided is promising. If and when you do reach such a branch you can look for the best move then.

Mukhin-Tal
Moscow 1972



Black to play

1 ... **e5!**

Black's idea is to sacrifice on d3. The game went 2 ♗c5 ♖xd3! 3 ♔xd3 ♗b5+ 4 ♔c2 ♘a4 5 ♔b3 b6! (6 ♗xe7 ♖c3+ 7 ♔a2 ♖c2+ 8 ♔b1 ♗d3! and mates) 6 ♘c4 bxc5 and wins.

But what would have happened if White's king accepted the challenge and marched forward?

2 **♗xe5** **♖xd3**

3 **♔xd3** **♗b5+**

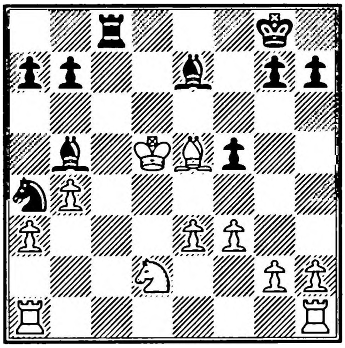
4 **♔d4**

This is the worst case. White occupies the square he made available with 2 ♗xe5. Black might have given up on 1...e5 – and chosen something else back at the diagram – once he saw that the forcing sequence 4...♖d8+ 5 ♔c3 ♖d3+ 6 ♔c2 would leave him out of bullets in a lost endgame.

4 ... **♘a4!**

But Black had correctly looked one move further and found this, which takes away the flight square at c3 and threatens to win with 5...♖d8+.

5 **♔d5!**



This is as far as Black calculated when he was weighing 1...e5. He stopped here because there were several ways of continuing (5...♖d8+; 5...♔f7; 5...♗g5, 5...♘b6+). There were too many branches to consider and none stood out as convincing.

"Too many branches" could be considered a valid reason to give up on 1...e5. Black didn't – precisely because there were so many possibilities here. Intuition "told me there must be a mate," he wrote in his game collection. He felt so strongly about it that he made "the most practical decision – to wait until this position occurred, and only then work out the solution."

He was right on both counts. When analyzing 1... e5 Black shouldn't agonize over what to do after 5 ♔d5. He should tackle the problem when the position occurred on the board. This decision allowed both his clock and synapses to rest.

And he was right to trust his intuition. His attack is winning – 5...♔f7 (threat of 6...♖d8+) 6 ♗d4 ♗f6! 7 ♗xf6 gxf6 (threat of 8...♖d8 mate) 8 ♔d6 ♖c6+ 9 ♔d5 ♖c7! 10 ♘e4 ♖d7+ 11 ♘d6+ ♔e7.

THE "BEST MOVE" MYTH

The greatest limitation we regularly face in finding the best move is not a lack of time. Nor is it our insufficient powers of visualization. It's the absence of a best move.

I tested this in two experiments in which I selected 50 games randomly from one recent edition of the *Chess Informant* and then 50 from another. The more than 6,000 positions that arose could be categorized in four ways:

Book positions – situations in which the game still followed opening theory or had reached known endgame theory. The players could rely on their knowledge or preparation to provide them with moves.

Forced positions – situations in which a particular move is virtually forced. This includes routine recaptures and mandatory responses to checks or other one-move threats. In both book and forced positions you can make a move with hardly any thought.

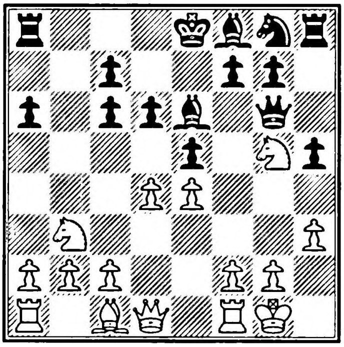
"Best" move positions – non-forced situations in which there was a move available that post-mortem analysis proved to be best.

Discretionary move positions – that is, the remaining positions. These are the cases when a Kasparov would play one move, a Karpov would select another, a Shirov might choose a third and none of their choices would be clearly "best."

For example, in the first diagram of this book, 20 ♖ad1 and 20...♗f8 were distinctly "discretionary." They were well beyond opening theory, there was nothing remotely forcing about the position and it defies analysis to prove that either move was "best."

In tactical positions, on the other hand, the number of forced and "best" moves can be high:

Shirov-I. Sokolov
Wijk aan Zee 2004



Black to play

Both players had relied on book moves up to here. In previous games Black answered White's last move, ♘g5, by retreating the bishop to c8.

1 ... ♗d7

Since 1...♗c4 was also reasonable, this was a discretionary situation.

2 dxe5

The first "best" situation of the game. Analysis showed 2 dxe5 to be better than anything else.

2 ... dxe5

A more or less forced move.

3 f4

Again best.

3 ... exf4

Some moves are difficult to categorize. A master might put this move in the "forced" box because 3...f6? 4 f5 loses material. But it might more properly be called "best" because there are reasonable but inferior alternatives, such as 3...♗e7 4 f5 ♕d6.

4 ♗xf4

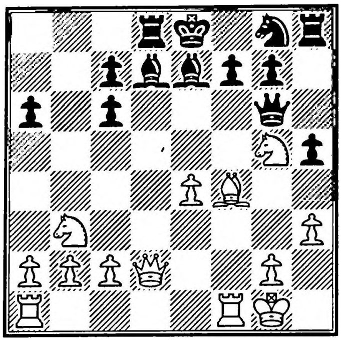
You can argue this is forced because 4...♕xg5 was threatened and because 4 ♘f3 ♗xh3 clearly favors Black.

4 ... ♗e7

A discretionary move. Black could have taken his chances in an ending after 4...f6 5 ♘f3 ♗xh3 6 ♘h4 ♕g4.

5 ♕d2 ♖d8

Both White and Black's moves are best (5...f6? 6 ♘f3 is bad for Black since 6...♗xh3 loses to 7 ♘h4 ♕g4 8 ♕c3! and 9 ♕xc6+ or 9 ♕xh3).



6 ♘xf7

White gave this an exclamation point and indicated it was best. But his analysis also showed that in the worst case White's advantage is about the same after 6 ♕e3. This indicates the choice is discretionary.

6 ... ♕xf7?

Black has some chances after 6...♔xf7 (7 ♗xc7+ ♘f6 8 e5 ♗xh3).

7 ♗xc7 ♕e6

8 ♗xd8

All three moves were best.

8 ... ♗xd8

This may be best since 8...♔xd8 9 ♕a5+ and ♕xa6 leaves Black behind in material and with a continuing king problem.

9 ♔h1

Discretionary. White could also play 9 ♘c5 ♗b6 10 ♕b4, for example.

9 ... ♘f6?

The post-mortem revealed there was a best move here, 9...♕e7.

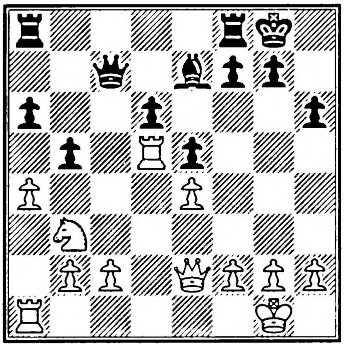
Of the 17 candidates selected since the first diagram, 10 or 11 occurred in situations where there was a "best" move. Because the position is now very sharp White was able to conclude matters with several "best" moves – 10 ♘c5 ♕e7 11 ♖ad1 ♗c8 12 e5 ♘d5 13 ♘e4 ♕xe5 14 ♖de1 ♗e7 15 c4 ♗b4 16 ♘c3 Resigns.

But this situation is unusual. Most games aren't that tactical and the quotient of "best" moves is much lower. In both experiments, the number of forced moves was fairly low (5.8 percent in one experiment, 6.4 percent in the other). Book moves accounted for a rather high figure (29.6 percent and 28.2 percent).

This meant that in roughly one third of all instances when a player had to select a move, he could make a choice with fairly little, if any, thought. In several of the games – those in which highly theoretical openings led into short, sharp tactical duels – these two categories accounted for more than half of all moves.

But the biggest surprise is that "best" move situations arose only 29 percent of the time in the experiment based on one *Informant* and 31.5 percent in the second. In both surveys, discretionary situations accounted for more than those in which a best move could be found. This is evident in games that are positionally oriented.

Kramnik-Gelfand
Cap'Agde 2003



White to play

Black has just played the first new move, ...b6-b5, beyond opening theory. Its tactical justification was Black's compensation for a pawn after 1 axb5 axb5 2 ♖xa8 ♖xa8 3 ♖xb5 ♖a2. White can ignore the sacrifice because he gets a nice positional advantage from other sources – the d5 hole, his good knight and Black's bad bishop, just as on p.106. There followed:

1 c3 ♕c4 2 ♕c2 ♖fb8 3 ♘d2 ♕c6 4 a5! ♖c8 5 ♕d3 ♖ab8 6 g3 ♕b7 7 ♘f1 ♖c4 8 b3 ♖c6 9 ♘e3 g6 10 h4 h5 11 ♕d2 ♗f8 12 ♘c2! ♖c5 13 ♘b4 ♖bc8 14 ♖d3 ♔h7 15 ♘d5 and White won seven moves later.

Undoubtedly White played some nice moves here. But how many of them occurred in positions where one move could be considered "best"? Perhaps only three or four. For Black the figure is probably less. It would be an exercise in futility for either player to have spent large amounts of time to find the "best" move.

The percentages would be somewhat different in the games of amateurs. They don't play as many book moves as GMs, for example. But this means the number of discretionary moves in their games would probably increase at the expense of book moves. The percentage of "best" moves would likely remain about the same.

What does this mean when you're playing a game? Just that:

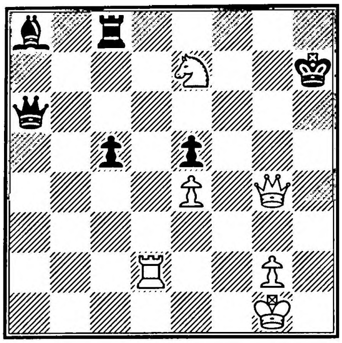
(a) We always want to play the best move, but

(b) We can't always be certain that such a thing exists, and

(c) We should never become obsessed about finding it.

"Do not forget that in most positions there are several good moves that look equally good but you only have to choose one of them," Nikolai Krogius wrote. Bobby Fischer put it slightly differently: "Don't worry about finding the best move. Just try to find a good move." That might have inspired White in the following.

Anand-Morozevich
Olympiad 2004



White to play

In time pressure Black has just captured a bishop on e5.

1 ♘xc8

"Yes, there's a probably a mate somewhere," White wrote in *New In Chess*. "But I couldn't be bothered." His move accomplished its mission. Black resigned.

PRACTICAL VERSUS BEST

Fischer's advice addresses a fact of life for the tournament player. More games are decided by double question mark moves – that is, blunders – than by double exclamation point moves. And the most common cause of blunders is a shortage of time, a shortage that often comes about in a fruitless search for the best move.

"I often warn young players: long thinking leads to doubts, to uncertainty in yourself," said Boris Postovsky, the celebrated Soviet/Russian/American coach. He was commenting about a 2000 game in which White thought 40 minutes on his 23rd move and forfeited six moves later as his game went quickly downhill.

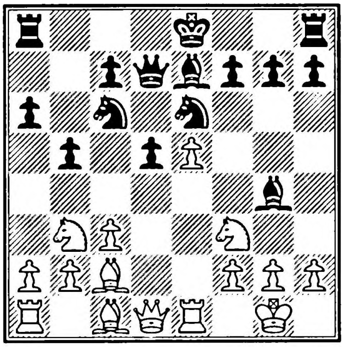
The better choice, Postovsky would say – and Fischer would concur – is the "practical move." This is a relatively modern phenomenon because for most of the history of competitive chess the conventional wisdom said you should settle for nothing less than the best move. Viktor Korchnoi, who grew up hearing that catechism, once explained how he was converted to pragmatism by playing Anatoly Karpov.

During their 1978 World Championship match, Korchnoi refused to take a Karpov pawn. He conceded that he couldn't find a refutation of the pawn grab. Later analysis showed he could have gotten away with it safely.

"But what complicated variations!" he wrote in one of his game collections. "It was not in vain that I played for three months with the most practical player in the history of chess! Even I was able to learn a little about how to economize on time and energy." Instead of taking the pawn he chose "a practical, Karpovian move."

Korchnoi showed what he had learned about the contrast between the best and the practical in positions like this:

Schmid-Korchnoi
BBC Master Game 1980



White to play

This was a rare position until it arose in that 1978 match. Here White tries a new idea, which Black called much stronger than the "kind of rubbish" Karpov had played against him, 1 h3.

1 ♕d3

If you put yourself in Black's chair, one of the tactics that might occur to you is the forking ...c5-c4. Since ...c5 would also be a positionally desirable move, Black began by examining 1...♘cd8, to free the c-pawn.

But then he noticed the down-side of 1...♘cd8. After 2 ♖d1 he can't defend the threatened d-pawn with ...♖d8 and would have to give up on ...c5, at least temporarily, by playing ...c6.

He also looked at 1...♖d8. "But then I have to calculate 2 a4," he said, because he wouldn't want to defend the b-pawn with the inconsistent 2...♖b8.

1 ... ♗h5!

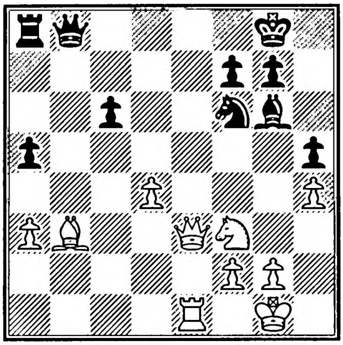
In the end Black picked this, which ensures a fine position after 2...♗g6 without risk or calculation. In retrospect, he found the best move without trying to.

We've repeatedly seen this conflict between a "best move" player and a practical one. It was once Alexander Alekhine, the perfectionist, versus the intuitive Jose Capablanca. Later it was Mikhail Botvinnik versus the pragmatic Vasily Smyslov. Then it became Korchnoi and Garry Kasparov versus Karpov. In each confrontation a good case could be made for perfectionism and an equally good case could be made for practicality.

A revealing comment came from Kasparov when he said, "Karpov's strongest point, and maybe his weakest, is that he doesn't look for the best move." This is, of course, an exaggeration. What he meant was that Karpov didn't strive to find the best move at every turn.

This was a strength because it conserved his energy for the moments that mattered. But it was also a weakness because Karpov often missed a chance to play a best move when it did matter. "He plays 40 good moves. Usually this is enough to beat his opponent," Kasparov said. "But it's not enough to beat me."

Kasparov-Karpov
World Championship match,
22nd game 1986



Black to play

Black seems only slightly worse but has problems defending c6 and f7 against ♘e5, ♕e7 and ♖c1.

1 ... ♘d5!

"All the commentators" criticized this, White wrote, because it allows him to obtain the lasting advantage of good ♘-vs-slightly-bad ♗. But 1...♘d5! is a superb practical choice. It forces White to trade off his best minor piece (because a queen move allows 2...♕xb3). Also it turns a slightly inferior pawn structure into an equal one and grants Black counterplay on open b- and c-files.

2 ♗xd5 cxd5

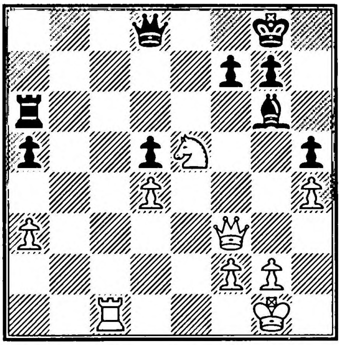
3 ♘e5 ♕d8

More active is 3...♕d6 but that invites 4 ♖c1 and ♖c6.

4 ♕f3 ♖a6

5 ♖c1?!

For once a general principle move is risky, not solid. Better was 5 ♕f4 first.



5 ... ♔h7?

This time Black's failure to calculate costs him. The position favors White's positional trumps, and for that reason Black should create a messy situation with 5...♕xh4!. He apparently rejected it because then 6 ♕xd5 means he will have traded a central pawn for a less valuable h-pawn.

But the tactical messiness would help Black. For example, 6 ♕xd5 ♔h7 threatens 7...♗e4! (8 ♕xf7 ♕g5! and wins because of 9...♕xg2 mate or 9...♕xc1+). Black is back in the game after 7 ♖c8 ♖b6, 7 g3 ♗e4 or 7 ♘xf7? ♗xf7 8 ♕xf7 ♖f6.

After the practical, cautious text White improved his piece activity with 6 ♕h3! ♖b6 7 ♖c8 ♕d6 8 ♕g3 a4 9 ♖a8!, e.g. 9...♖b3?? 10 ♖h8+! ♔xh8 11 ♘xf7+ and 12 ♕xd6 or 9...♖a6 10 ♘xf7! ♗xf7 11 ♕d3+.

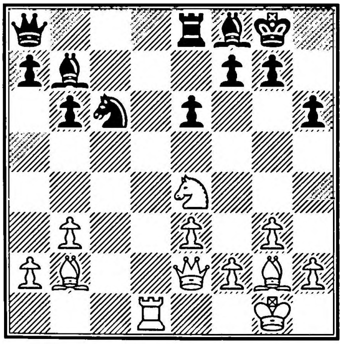
He eventually finished off with a combination that virtually ensured he would remain world champion. The combination reaped exclamation points of praise. But the game's decisive factor was Black's failure to find the best move – when it really did matter.

9: Juggling, Tweaking, Rechecking

In working your way through the analysis of a candidate you may encounter problems that seem to disqualify it. But if you juggle or tweak the ideas found on the branches you may be able to turn an unplayable move into a strong one. This chapter examines how your analysis can be refined and then rechecked.

Juggling ideas is possible because there may be several tactical elements – checks, captures, pins, skewers, and so on – in a position. If a tactic doesn't work in one move order, it may in another.

Botvinnik-Larsen
Palma de Mallorca 1967



White to play

White's pieces stand so much more aggressively than Black's that he has reason to look for a knockout. He began by analyzing 1 ♘f6+ gxf6 2 ♕g4+ and saw that any reply but 2...♔h7 would allow 3 ♗xf6(+) and mates. That was encouraging. But when he continued his analysis with the most forcing line, 3 ♗e4+ f5 4 ♗xf5+ exf5 5 ♕f5+, he found there was nothing more than perpetual check.

1 ♖d7

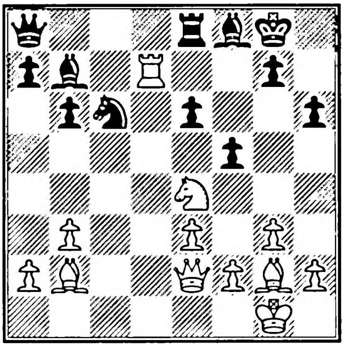
White recognized how well ♖d7 and the knight check work together. He threatens 2 ♘f6+ gxf6 3 ♕g4+ ♔h7 4 ♖xf7+ and wins.

But he didn't realize how much more powerful the ideas are in a different order of moves, 1 ♘f6+! gxf6 2 ♕g4+ ♔h7 3 ♖d7!. That would win in lines such as 3...♘d8 4 ♗xb7 ♘xb7 5 ♖xf7+ or 3...♗e7 4 ♗e4+ ♔h8 5 ♖xe7! and ♗xf6 mate.

The key branch is 3...♖e7 4 ♗e4+ f5 5 ♗xf5+ gxf5 6 ♕xf5+ ♔g8 7 ♕f6 and mates. That's long – but not that difficult to calculate because it's based on forcing moves by White and forced replies by Black. White missed it because he never considered juggling the ideas.

1 ... f5

This stops ♕g4. But it creates a new idea, the invasion of the queen at h5 and f7.



2 ♘d6?

A general principle move. Yet White again misses a win he could have forced by mixing two tactical ideas, ♘f6+ and ♕h5. For example, mate is threatened by 2 ♘f6+! gxf6 3 ♕h5 and ♕g6+ or ♕f7+.

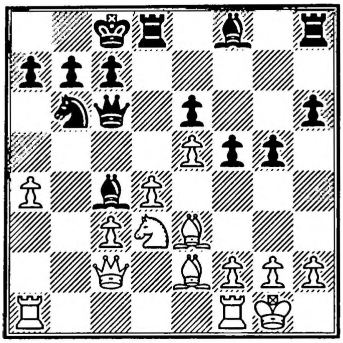
After 3... ♖e7 4 ♕g6+ ♖g7 5 ♖xg7+ ♗xg7 White finishes off with 6 ♗xc6 ♗xc6 7 ♗xf6 ♕f8 8 ♗xg7 ♕xg7 9 ♕xe6+ and ♕xc6. That's another long branch to work through. But you can find all of White's moves if you just look for checks, threats and captures.

What is remarkable is that White, one of the finest calculators in history, was trying hard to find a forced win – yet he also missed two others after 1...f5 because he didn't tweak his ideas. He calculated 2 ♕h5! ♖e7 3 ♖xe7 ♘xe7 (3...♗xe7 4 ♕g6!) 4 ♘d6 ♗xg2 5 ♕f7+♔h7. But he gave up on this line and concluded 5...♔h7 was a dead end, because he failed to notice the killing 6 ♗xg7! ♗xg7 7 ♘e8!.

After 2 ♘d6 the game continued 2...♗xd6 3 ♖xd6? and White eventually won. But he rejected the obvious 3 ♖xg7+! because he overlooked 3...♔f8 4 ♖h7! followed by ♖h8+ or ♕h5, winning. White failed to use his opportunities even though he was well aware of the basic elements – ♘f6+, ♖d7 and ♕g4+ or ♕h5 – which kept appearing on branches.

Juggling ideas is not confined to tactical positions and seven-move combinations. Far from it. It occurs more often in quiet positions in which you can reverse the order of a two- or three-move sequence and transform an even position into a favorable one.

Karpov-Ivanchuk
Reggio Emilia 1991



White to play

Black's iron control of c4 and d5 make the position seem double-edged. White would love to oust the bishop with ♘b2 and then push his c-pawn. But after 1 ♘b2 Black replies 1...♗xe2 and stands well.

This suggests White should try a different order: 1 ♗f3 and then 1...♘d5 2 ♖fc1 unpins the knight. He can continue with 3 ♘b2 followed by a favorable ♘xc4 trade or the desirable c3-c4 push. (He doesn't fear 2...♘xe3 3 fxe3 because Black's knight is the better minor piece.)

However, White saw a problem with that sequence, too. Black can answer 1 ♗f3 with 1...♗d5! and keep control of c4 and d5.

So White looked at a third candidate, 1 a5. After 1...♘d5 2 ♗f3 he has the pin that he wanted in the 1 ♗f3 ♘d5 sequence and is ready to carry out the rest of his plan – ♖fc1, ♘b2 and c3-c4.

But Black can anticipate that with 2...♕a6!, which leaves him in good shape.

1 ♖fc1!

The sequences White was considering involve the same moves – ♘b2, ♗f3, a4-a5 and ♖fc1. Once you've rejected three as candidates, it's natural to look at the fourth.

White threatens to get the upper hand with 2 a5 ♘d5 3 ♗f3 and 4 ♘b2. Black cannot anticipate that with the defense he had in the 1 a5 line because 1...♕a6 is illegal. He switched blockaders with 1...♗d5 2 ♗f1 ♘c4. But after 3 ♗d2 and 4 ♘b4! White had the edge he was seeking.

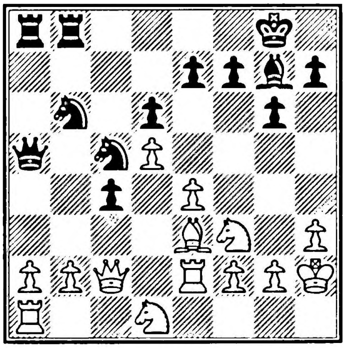
RECYCLED IDEAS

It's estimated that each day the average person has more than 80,000 ideas. The people who come up with such statistics don't explain how they define "ideas." But they also claim that at least three quarters of the ideas you have today were ideas you also had yesterday.

Chess players experience this phenomenon when an idea they explored on a previous move comes back to them on the next turn. The idea may have failed for tactical reasons when it first occurred to them. But it may work in recycled form.

Another kind of recycling occurs when an idea works so well in the branch of one tree that you can shift it onto another tree.

Haba-Prusikhin
Bundesliga 2003



White to play

White's best ideas are ♘d4-c6, to occupy a strong outpost, and ♘d2, to win the c-pawn.

1 ♘d2

There was a tactical problem with 1 ♘d4 – 1...♗xd4! 2 ♗xd4 ♘b3!, forking the rook and bishop (3 axb3 ♕xa1).

1 ... ♘b3!

Black recycles the strongest tactical idea of the 1 ♘d4 tree.

2 ♘xb3

He has the edge after 2 axb3 ♕xa1 and would win easily after 2 ♘xc4? ♘xa1!.

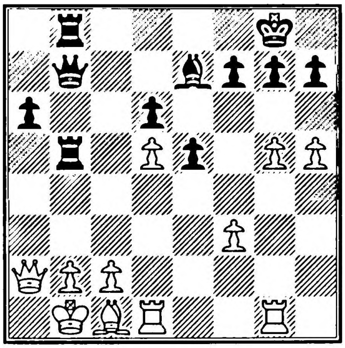
2 ... cxb3

3 ♕xb3 ♘a4

Black will stand well after 4...♘xb2 because of the fine piece activity he unleashed with 1...♘b3!, e.g. 4 ♕c2 ♘xb2 5 ♖b1 ♖c8 6 ♕d2 ♕xd2 7 ♖xd2 ♘xd1 8 ♖bxd1 ♖a4 and ...♖ca8.

Of course, your opponent can recycle ideas, too. But if you're alert you can anticipate him.

Kramnik-Leko
Dortmund 2003



Black to play

Black has had the better position for several moves, thanks to the targets at b2 and d5. His choice appears to be confined to quiet moves such as the worst-placed-piece maneuver ...♗d8-b6-d4.

1 ... f5!

2 gxf6 ♗xf6

Black has a big edge thanks to the threat of 3...e4! and 4...♗xb2. White replied 3 b3 ♖xd5 but was soon lost.

Yet how does a move like 1...f5! occur to you? One explanation is that both players had been thinking for some time about White playing ♖g4!.

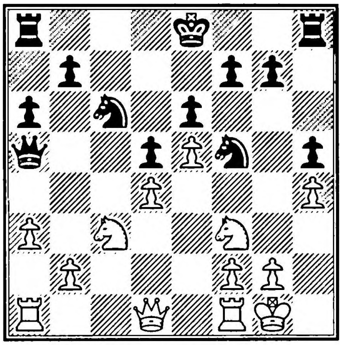
Two moves before the diagram arose, Black's rook stood at b4, rather than b5, and White was preparing to trade it off with ♖g4 followed by ♖xb4. If Black had met ♖g4 with ...♖b5, White could fight back on the queenside with ♖a4 or ♖c4.

Although ♖g4 wasn't played then, neither player forgot it. When the position in the diagram arose Black saw that if he played 1...♗d8 the recycled 2 ♖g4! would anticipate ....♗b6xg1 and defend the queenside in lines such as 2...♗b6 3 c4!.

Black's best then may be a sacrifice, 3...♖b4!? 4 ♗d2 ♗d4 5 ♗xb4 ♕xb4 6 ♖g2? ♕c3!. But again thanks to that star move, 2 ♖g4!, White can defend with 6 ♖gxd4! exd4 7 ♔c1.

Once Black appreciates the strength of a recycled ♖g4, the idea of 1...f5! jumps out. But let's raise a warning flag: 1...f5 wasn't forcing, and 1 ♖fc1 on p.174 was the least forcing of the four ideas that White was working with. When you get further and further away from force, calculation becomes impossible. There is a danger that you will over-finesse yourself by thinking too far in the future. An embarrassing example of that was:

Svidler-Epishin
Groningen 1997



White to play

White reasoned that he will eventually play b2-b4, which gains space and attacks the queen. But Black can answer b2-b4 with his own threat, by retreating the queen to d8. White would then be required to defend against ...♘xh4 with g2-g3. Why not use the g2-g3 idea before it's forced, White asked himself.

1 g3??

Better was 1 ♘a4 ♕d8 2 g3 with equal play.

1 ... ♕b6

2 ♘a4

Now 2...♕d8 gives White what he wanted, a slight edge following 3 ♖c1 or 3 ♘c5.

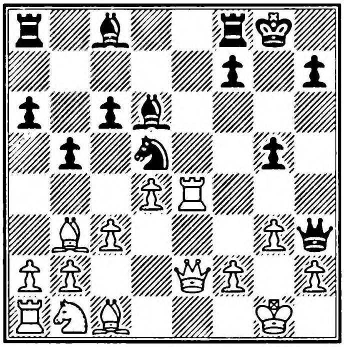
2 ... ♕a7!

White must lose the-pawn.

ZWISCHENZUGGERY

Sometimes you can avoid a tactical problem in a tree branch simply by inserting an in-between-move, a zwischenzug.

Smirin-Grischuk
Panormo 2001



Black to play

In a book position, where 1...♘f6 and 1...♗f5 had been tried, Black opts for a bigger threat.

1 ... f5

There are clear benefits to this since 2 ♖e8 f4 grants Black a strong initiative. There are risks, too, because 2 ♖e6 is a forcing reply. After 2...♗xe6 3 ♕xe6+ ♔h8 White can win material with ♕xd6 or obtain plenty of compensation for the Exchange with ♗xg5. If necessary, he can eliminate counterplay with ♗xd5.

2 ♖e6??

But there was right way and a wrong way to carry out White's idea.

2 ... ♗xe6

3 ♕xe6+ ♔h8

Only now does he see that 4 ♗xg5 (or 4 ♗xd5) would allow Black to insert 4...♖ae8!, which wins.

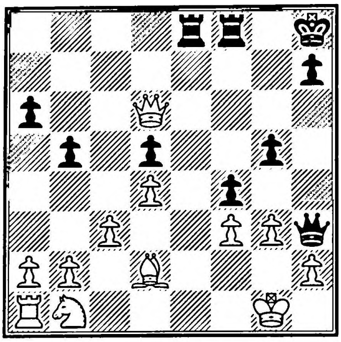
4 ♕xd6 ♖ae8

Now 5 ♗e3 f4 6 ♗xd5 loses to 6...fxe3!.

5 ♗d2 f4

6 ♗xd5 cxd5

7 f3



7 ... g4!

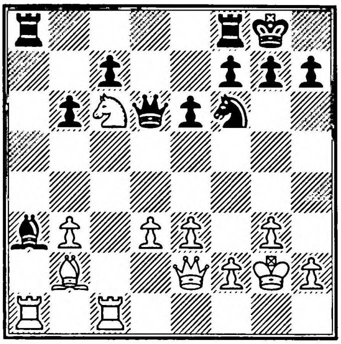
White resigned in view of 8 fxg4 f3. What doomed him was overlooking two zwischenzugs, one for his opponent (4...♖ae8 in the 4 ♗xd5 and 4 ♗xg5 branches) and one for himself.

He could have gotten the position he wanted by inserting 2 ♗xd5+! cxd5 before 3 ♖e6. If Black continues 3...♗xe6? 4 ♕xe6+ ♔h8 White avoids 5 ♕xd6 ♖ae8, which leads into something like the game, and plays 5 ♗xg5 instead, with promising chances. The addition of ♗xd5 means that 5...♖ae8 is not possible because of 6 ♗f6+.

An in-between move doesn't have to be as committing as ♗xd5+ to be effective. It can be a routine-looking move that forces a defensive piece to make a choice.

Chuchelov-Rogozenko

Bundesliga 2003



White to play

Here's an example of how tactical vision may vary from one set of eyes to another. Some players would immediately look at 1 ♗xa3 and try to find a strong follow-up to 1...♖xa3. But there isn't one.

Other players would start with 1 ♗xf6 but then search in vain for a good reply to 1...♗xc1. For example, 2 ♕g4 allows 2...♕xc6+ (3 ♔h3 g6). Trying to save the 1 ♗xf6 idea by means of 2 ♖xc1 gxf6 3 ♕g4+ ♔h8 4 ♕h4 is met by 4...♕d5+ and ...♕g5.

Yet the more you look at the diagram, the more you realize that ♗xf6 is the best idea White has going for him. Before you let go of it and settle for a quiet candidate, you should look for a way of tweaking ♗xf6.

1 ♗e5!

Since Black's queen keeps saving him in the 1 ♗xf6 lines, with checks on c6 or d5, it makes sense for White to try to push it offstage.

1 ... ♕d7

The best try was 1...♕d5+ 2 e4 ♕xb3 but that means Black has to give up the queen after 3 ♖cb1 ♕a4 4 ♘e7+ ♔h8 5 ♗b2 ♗xb2.

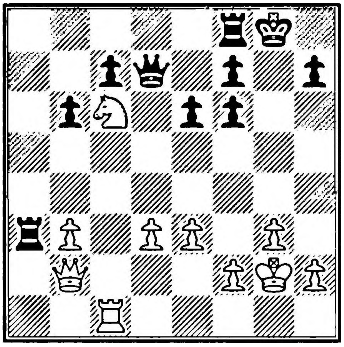
2 ♖xa3!

Again 2 ♗xf6 ♗xc1 fails.

2 ... ♖xa3

3 ♗xf6 gxf6

4 ♕b2!



If White had begun with 1 ♖xa3 ♖xa3 2 ♗xf6 gxf6 3 ♕b2 – that is, without the insertion of ♗e5/...♕d7 – the rook would be protected on a3 and Black could take time to defend the f6-pawn with his king.

4 ... ♖fa8

White's queen and rook decide after 4...♕d6 5 ♕xf6 ♖e8 6 ♖c4!. Also lost is 4...♕d5+ 5 f3 ♕xb3 6 ♕xf6, threatening ♘e7 mate.

5 ♕xf6 ♕d5+

6 e4 ♕xd3

7 ♘e7+ ♔f8

8 ♖xc7

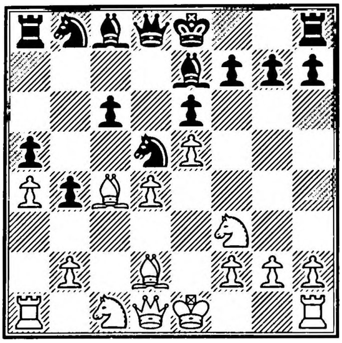
Black resigned after 8...♕xc4+ 9 ♔h3. Just a little tweaking turned the idea of 1 ♗xf6? into 1 ♗e5! and a winning attack.

ABSTRACT VERSUS CONCRETE

Leafing through tree branches can suggest new candidates or different move orders. But you may also develop insights of a more abstract character.

For example, you might realize that one particular enemy piece is doing all the damage in key lines. That leads you to figure out a way to eliminate the hostile piece. Or the analysis may tell you when not to trade one of your own pieces.

Yakovich-Sadler
Pula 1997



Black to play

If White can play ♘d3 or ♘b3 and ♖c1 he will discourage the freeing ...c5. Experience with 1 d4 teaches you that is a kind of positional hammerlock for White.

Black began by looking at 1...♗a6. This seems to be positionally desirable because it tries to trade White's bishop for Black's undeveloped "bad" bishop. Also, 2 ♗xa6 ♘xa6 would set up 3...c5.

1 ... ♘d7!

But after considerable thought Black came to the realization that his light-squared bishop is not a bad piece at all. It will be needed to cover key squares once he plays ...c5. Had he tried 1... ♗a6 2 ♗xa6 ♘xa6 3 ♘b3 c5 4 ♖c1 cxd4 5 ♘fxd4 he would face gaping holes at b5 and c6.

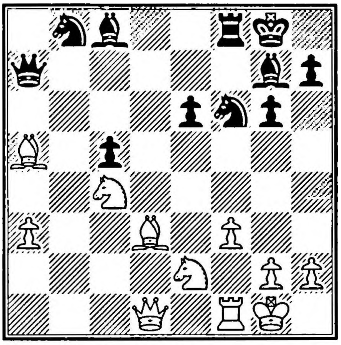
2 ♘b3 ♗b7

3 ♕e2 c5!

Black obtained a good position after 4 0-0 0-0 5 ♗d3 cxd4 6 ♖fc1 ♕b6. Since the game was played, 1...♘d7 and 2...♗b7 have become book moves.

Insights like "Black should keep his light squared bishop" are easier to express in words than moves. But once you realize what you've discovered, they can be translated from words into a candidate.

Azmaiparashvili-Conquest
Silivri 2003



Black to play

1 ... ♘d5

White believes he has an edge because of his opponent's ugly pawns and holes. But in lines such as 2 ♕c2 ♘e3 3 ♘xe3 ♕xa5 or 2 ♕d2 ♘c6 chances are roughly equal. Is White just expecting too much from the position?

2 ♗e1!

No, it is really is a superior position for White. The more White analyzes lines like 2 ♕c2 and 2 ♕d2 the more he appreciates that the fly in his ointment is his bishop at a5. After 2 ♗e1 it will go from being a liability to an asset at f2, where it guards e3 and the king's position and takes aim at the c-pawn.

2 ... ♘c6

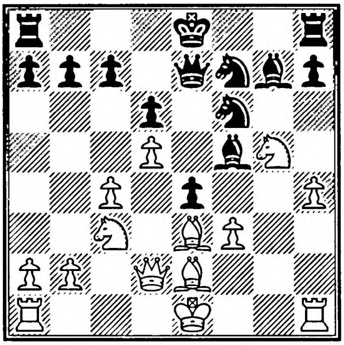
3 ♗f2

White's maneuver is hardly dramatic and not in the least bit forcing. Yet it performs wonders after 3...♖d8 4 ♕b3. Before White could play ♖b1 or ♖c1, Black replied 4...♘c3 so that 5 ♘xc3? ♖xd3 would favor him. White eventually won after 5 ♕c2! ♕d7 6 ♘xc3 ♕xd3 7 ♕xd3 ♖xd3 8 ♘c4 ♘d4 9 ♖b1 ♗f8 10 h4 ♖b3 11 ♗xd4.

In highly tactical positions you won't want to spend a tempo on retreats like 2 ♗e1. A better way of meeting the dangers that enemy pieces pose is simply to eliminate them. But which pieces?

That's another kind of general insight you can gain by leafing through the branches. In the next example White could have found the best move in a variety of ways. But the path of his thinking was instructive.

Seirawan-Speelman
Olympiad 1998



White to play

All sorts of things are happening around e4, where White's attention is directed at swaps of pieces and pawns. He investigated branches such as 1 fxe4 ♘xe4 2 ♘gxe4 ♗xe4 3 ♘xe4 ♕xe4 4 0-0-0.

But White didn't like the looks of 4...0-0-0 which threatens 5...♕xe3! and 6...♗h6, allowing Black to escape into an endgame. Yet as he studied the position more and more he came to the conclusion that Black's f7-knight – which makes tricks like 5...♕xe3! possible – was a much better piece than the f6-knight. That conclusion led him to:

1 ♘xf7!

This is a big tree to calculate because there are three branches, 1...♕xf7, 1...♔xf7 and 1...exf3. But White felt he could stop his analysis of 1...♕xf7 2 0-0-0 after seeing that both 2 ...0-0-0 3 ♗xa7 and 2...0-0

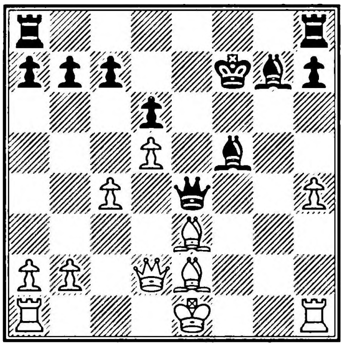
3 ♖dg1 and ♗d4/♖g5 seemed good for him. If Black can't castle in such a position, he must be in trouble, he reasoned.

1 ... ♔xf7!

More exact calculation was demanded by 1...exf3 but White would keep his extra material after 2 ♘xh8 fxe2 3 ♗d4.

2 fxe4 ♘xe4

3 ♘xe4 ♕xe4



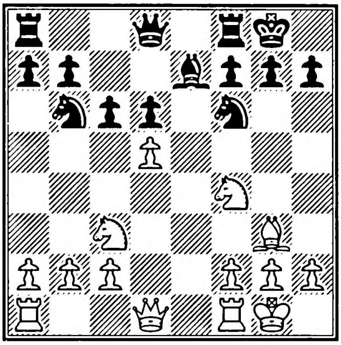
This looks good for Black, since ...♕xh1+ is threatened and 4 0-0-0?? is self-mate.

4 0-0!

Thanks to his appreciation of which enemy pieces to trade off, White's remaining pieces gave him the stronger attack. His threat of 5 ♖xf5+ ♕xf5 6 ♖f1 is strong. Even against the best defense, 4...♖ag8!, he should win after 5 ♗h5+ ♔f8 6 ♖xf5+ ♕xf5 7 ♗g5 and ♖f1.

TWIN BRANCHES

Another kind of problem arises when two tree branches diverge and then seem to unite later on. This means you have a choice of how to reach a future position. When you are faced with that choice there are two questions you should ask yourself. But many players only ask one.



Black to play

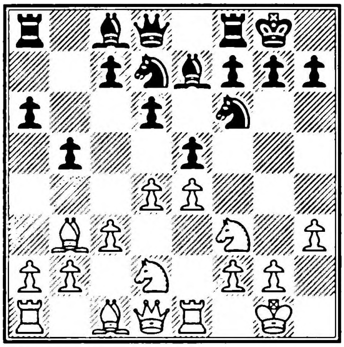
1 ... ♘bxd5

It shouldn't take White long to see he has nothing better than to capture on d5. But there are still two questions: Which of his knights should capture first on d5? And does it matter?

In this case it doesn't. There is no significant difference between 2 ♘cxd5 – because 2...♘xd5 3 ♘xd5 cxd5 is best for both sides – and 3 ♘fxd5 – because 2...♘xd5 3 ♘xd5 cxd5 is also best. The final position is the same.

In other situations it does matter, and if you don't ask the second question you may end up with the wrong answer to the first.

J. Polgar-Spassky
Match 1993



Black to play

This book position arose in three games of this match. Two of them went 1...♗b7 followed by 2 ♗c2 ♖e8. The third varied slightly.

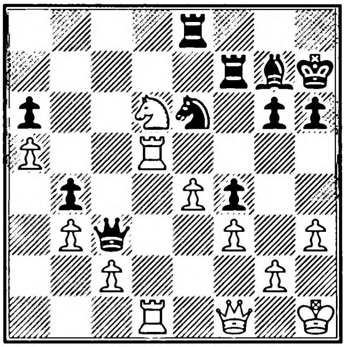
1	...	♖e8
2	♘f1	♗b7
3	♗c2	♗f8

This transposes into the position reached in the other two games and all three continued on their mutual way with 4 ♘g3 g6.

Since they transposed, can there be a difference between 1...♗b7 and 1...♖e8 ? The answer is "Yes!" – but neither player asked that question. After 1...♖e8?? Black can resign if White finds 2 ♗xf7+! (because of 2...♔xf7 3 ♘g5+ and 4 ♘e6, trapping the queen).

"Does it matter?" becomes more important when two branches don't transpose exactly but rather reach very similar positions.

Akopian-Svidler
Wijk aan Zee 2004



Black to play

This arose at the end of a combination. Because of the knight fork White must win the Exchange and emerge from the complications with a rook and at least two pawns for Black's two minor pieces.

Of course, Black was concerned with basic questions: Who would that favor and by how much? But the immediate problem he faced was deciding how to defend his rooks. One has to go to e7 or f8. But which one? And does it matter?

1 ... ♖ee7?

2 ♘xf7 ♖xf7

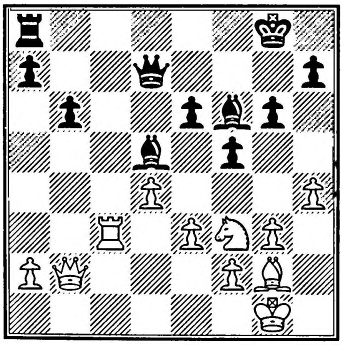
3 ♕xa6!

It does matter. Thanks to a possible pin (3...♘c7 4 ♕b7 ♘xd5 5 ♕xf7) White will obtain an outside passed pawn that proves decisive. Black conceded soon after 3...♘d4 4 ♕d3 ♘xc2 5 ♖c1.

He missed his chance when he could have played 1...♖fe7 or 1...♖ff8. The difference is that Black ends up with a rook at e8, rather than f7. This is significant because on 2 ♘xe8 ♖xe8 3 ♕xa6? ♘c7! there is no pin. White would have to settle for a smaller (3 ♕c4) edge.

Significant differences like that turn up on a regular basis when there is a choice between two moves, especially by queens, that seem to achieve the same purpose.

Karpov-Gelfand
Candidates match 1995



White to play

White's chief asset is control of the c-file. That might be decisive if he can play ♖c7 supported by the queen. But it might also be temporary because Black is preparing ...♖c8. If White ends up trading rooks, the resulting position favors Black's bishops.

1 ♕c1?

Since ♖c7 is the goal, White's choice was between 1 ♕c1 and 1 ♕c2. He saw that in neither case could Black play 1...♗xa2. (Here it allows 2 ♘e5, followed by 3 ♘xd7 or 3 ♗xa8, winning material.)

That suggested the main difference between the two queen moves, if there really is one, is that 1 ♕c2 would permit the annoying 1...♗e4.

1 ... ♗b7!

But there was another difference. Black can now meet 2 ♖c7 with 2...♖c8! 3 ♖xd7 since 3...♖xc1 is check. Because he overlooked that nuance White lost most of his advantage and eventually drew following 2 ♘e1 ♖c8! 3 ♗xb7 ♖xc3 4 ♕xc3 ♕xb7.

Going back to the diagram, we can see that 1 ♕c2 stops 1...♗b7? because of 2 ♖c7 ♖c8 3 ♖xd7 ♖xc2 (not check) 4 ♖xb7.

Moreover, the move he feared, 1...♗e4?, would allow 2 ♘e5!, e.g. 2...♗xc2 3 ♘xd7 and all three Black pieces hang, or 2...♗xe5

3 ♗xe4 dxe4 4 ♕xe4!. Even on 2...♕b7 3 ♖c7 ♕d5 White has a winning attack with 4 ♖c8+!.

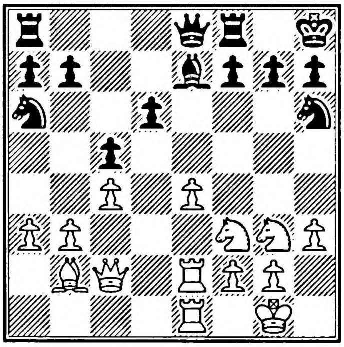
White's error was not simply a matter of overlooking a tactic. His primary mistake was failing to realize there was big difference between the two queen candidates.

The way to deal with such choices starts with being aware that it may matter. Look to see if there is a tactical difference between candidates A and B. Look and you might find.

QUIET MOVES

When no candidate seems to work well your best policy may be to do...nothing. Well, not exactly nothing, just nothing ambitious or remotely forcing. You can delay carrying out tactical ideas or strategic plans in favor of quiet moves.

One brand of quiet moves can be judged by what they stop, rather than what they do.



Black to play

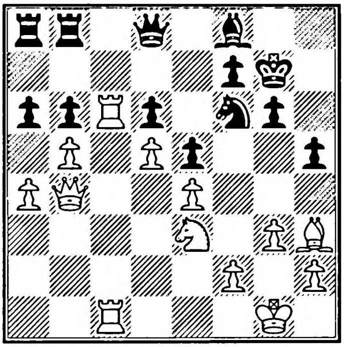
There are useful moves at Black's disposal (...♘c7, ...♖d8, ...♕d7) that improve the coordination of his pieces. But none is as effective as:

1 ... f6!

This reduces the scope of some of Black's pieces, such as the bishop. But 1...f6 should be judged by what it prevents – the powerful 2 e5! that would have released the pent-up power of White's pieces. Black's chances are appreciably improved by 1...f6.

Another kind of quiet move advances a plan by taking the least objectionable steps.

Petrosian-Pilnik
Candidates Tournament 1956



White to play

This came towards the end of one of Tigran Petrosian's positional masterpieces, at the point where annotators often dismiss the remaining moves as "a matter of technique." These moves aren't.

1 ♖e1!

"An at first incomprehensible move," White wrote. He is ready to cash in on the queenside with ♘c4 followed by a capture on b6. But the immediate 1 ♘c4 hangs the e-pawn. Defending it with 1 ♗g2 eases the pressure on Black. And 1 f3 weakens the second rank and kingside so much that 1...axb5 2 axb5 h4 would create real counterplay. Process of elimination leaves White with 1 ♖e1, a candidate so harmless that it might not occur to many players.

1 ... axb5

2 axb5 ♘h7

Black decides to make his stand on the kingside with ...♖a2, ...♘g5 and ...♕f6.

3 ♘c4 ♖a2

4 ♗g2!

The bishop has done his job on h3. White could have forced matters with 4 ♕b3 but he prefers to anticipate ...♘g5 first.

4 ... ♕f6

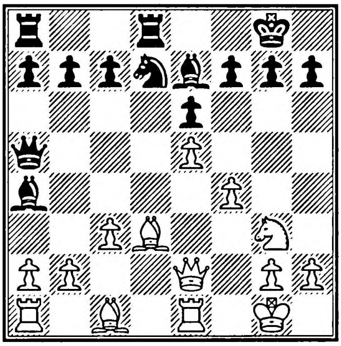
5 ♖f1!

With a series of inoffensive precautions, White has taken all the poison out of the position and can win the b-pawn when he's ready. He easily repulsed the attack (5...♘g5 6 ♕b3 ♖ba8 7 h4 ♘h7 8 ♖xb6) and won.

Some amateurs appreciate how a positional plan like White's queenside attack can be aided by quiet moves. But they don't make the connection between a more aggressive plan, such as a kingside attack, and passive-looking candidates. After all, isn't attack all about getting to the other guy's king before he gets to yours?

No, as examples like the following illustrate. White makes a series of preparatory moves that eliminate virtually all counterplay.

Adams-Korchnoi
Enghien-les-Bains 2003



White to play

Black has just played ...♖fd8 and appears to have sufficiently active (...♘c5) pieces. The forcing moves at White's disposal don't have enough force, e.g. 1 b3? ♗xb3 or 1 f5? ♘xe5 2 ♕xe5 ♕xe5 3 ♖xe5 ♖xd3.

If he tries to trap the queen with some mixture of ♗e3 and b2-b4, Black has ample resources, e.g. 1 ♗e3 ♗c5 or 1 b4 ♕b6+ 2 ♗e3 c5.

White shouldn't forget about those ideas just because they don't work immediately. He should retain them for recycled use later.

1 ♔h1!

Julian Hodgson, a veteran of grueling Swiss System schedules, calls such precautions "Saturday evening moves." But this is more than the kind of low-calc safety measure you play at the end of a long tournament day at the risk of wasting a tempo. Here it makes sense because White can set up a better tactical foundation for ♗e3/b2-b4 or f4-f5 by eliminating diagonal checks to his king.

1 ... ♘f8

Black can't play 1...♘c5 because of 2 b4. Another attractive idea, 1...♗c6, is refuted by 2 b4! (2...♕a4 3 b5 ♗d5 4 c4).

Preparing ...♗c6 with 1...♕b6 would allow 2 b3! ♗c6 3 b4, setting up a threat to the queen, 4 ♗e3.

2 ♗e3

This threatens 3 b4 and prevents 2...♗c5 (because there is no check in 3 b4 ♗xe3, due to 1 ♔h1).

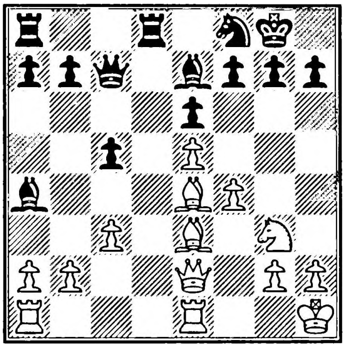
2 ... c5

3 ♗e4!

This was a better time to play f4-f5 than on the previous move and White would have good chances after 3 f5 ♗c6. However the outcome is far from evident following 4 ♖f1 ♗h4 5 ♘h5 c4! 6 ♗xc4 ♕xe5 or 4 f6 gxf6 5 exf6 ♗xf6 6 ♘h5 ♗e7. Instead White takes one last preparatory step that frees his queen to go to g4 or h5.

3 ... ♕c7

Black tries to discourage 4 f5 in view of 4...♕xe5. His move has a second purpose in preparing to swap bishops with ...♗c6xe4.



4 f5!

Enough quiet moves. White doesn't want his moment to slip away (4 ♕g4 ♗c6) due to too much preparation.

4 ... ♗c6

On 4...♕xe5 5 ♕g4 the threat of ♗f4 would be strong. Black's best try was 4...♗h4 to eliminate the knight. But 5 ♕g4 ♗xg3 6 f6! would have kept a White edge.

5 ♗xc6 bxc6

Another dividend of 3 ♗e4: Black recognizes that 5...♕xc6 would lose to 6 ♕g4 followed by ♘h5 or f5-f6. For example, 6...exf5 7 ♘xf5 ♘g6 is beaten by 8 ♕xg6! and 9 ♘xe7+.

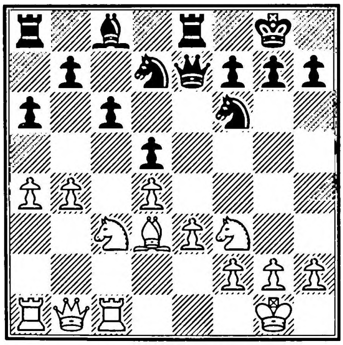
6 ♕g4!

Thanks to his preparatory moves White's attack is overwhelming, e.g. 6...exf5 7 ♘xf5 ♘g6 8 ♘xe7+ ♕xe7 9 ♗g5 or 6...♕xe5 7 ♗g5 ♕c7 8 f6.

WAITING

The other main category of quiet moves includes those so muted we call them waiting moves. They are just barely more than pure passes. But they're constructive passes.

Kramnik-Timman
Belgrade 1995



Black to play

White has begun the familiar minority attack on the queenside but hasn't committed himself to opening the position with the key move b4-b5. Black can choose from the usual suspects in such positions, ...♘e4, ...♘f8 and ...b5. Each has plusses and minuses:

The bridge-burning ...b5 stops b4-b5 and enables Black to fight on the queenside with ...♘b6-c4. But the immediate 1...b5? fails tactically to 2 axb5 cxb5 3 ♗xb5.

Better is 1...♘e4 but Black knows from experience that 2 ♗xe4! is usually a good reply in such positions, e.g. 2...dxe4 3 ♘d2 followed by 4 b5 or 4 ♘c4.

What about a less committing maneuver such as 1...♘f8 ? The problem with that is the knight was doing a good job at d7 because it allows Black to answer b4-b5 with ...c5. For example, with the knight at d7 he can meet 2 b5 axb5 3 axb5 ♖xa1 4 ♕xa1 with 4...c5! 5 dxc5 ♘xc5 and have active play.

By process of elimination, Black has exhausted his natural candidates. But he knows his position cannot be that bad this early in the game. He should be able to find a move that doesn't make matters worse.

1 ... g6

Black correctly waits with a move that is more than a pass. It takes away ♗xh7+, which can be a danger when Black's f6-knight moves.

2 ♕b2!

This is also a waiting move and a bit more constructive than 1...g6. Now after b4-b5 and a rook swap, White can retake on a1 with the more desirable rook.

2 ... a5

Black blinks. He doesn't have a particularly constructive waiting move, since 2...♖b8, 2...♘f8 or 2...♘b6 all make 3 b5 stronger. But both 2...♔g7 and 2...♕d6 were good passes – and better moves than 2...a5.

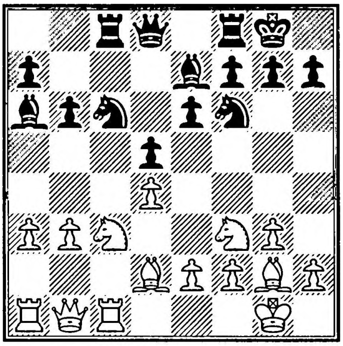
3 bxa5!

Waiting moves are out of the question now that Black has started the queenside fight. Black was hoping for 3 b5 c5!, which would justify his delay in moving the d7-knight.

However after 3 bxa5 ♖xa5 4 ♘d2 and ♘b3 White had a positional edge on the side of the board he wanted to open. He eventually won.

What trips up many players when they try to play waiting moves is that they select passes somewhat randomly, thinking that almost any move will do. They forget that cardinal rule: First of all, do no harm. Here's a case of good and bad passes.

O'Kelly-Miles
BBC Master Game 1979



Black to play

"A plan, my kingdom for a plan," Black said. But he couldn't find a good one. He would like to put pressure on the center with ...♘d7 and ...♗f6. But after 1...♘d7 2 e4 it is White who is applying pressure.

Black also considered ...♗d6 and ...♕e7, to attack the only other apparent target, the a-pawn. If White has to defend a3 by pushing one of his queenside pawns he must concede a square to Black's pieces.

But again Black had doubts. After 1...♗d6 2 e4 he would probably have to trade twice on e4, after which White threatens ♖xc6 and can think about ♘g5/♕xh7 mate.

1 ... ♖e8

As he worked through the branches, Black came to a realization that a computer wouldn't. Aside from e2-e4, White doesn't have a convincing plan or even "a sensible move," as Black put it. Unless Black cooperates, with moves such as 1...♘d7 or 1...♗d6, White cannot play 2 e4 because it loses the d-pawn after 2...dxe4 3 ♘xe4 ♘xd4.

This means Black's position is ripe for a worthwhile pass. The rook move frees f8 for a regrouping maneuver, such as ...♗f8 and ...♘e7-f5. It also waits for the moment when ...e5 will be strong.

2 e3

White reasoned that his worst-placed piece was the bishop at g2 and this suggests he should play it to f1 in coordination with e2-e3.

2 ... h6

Black still didn't like 2...♗d6, because of 3 e4. Encouraged by the quiet nature of 2 e3, he felt he could afford another pass. The pawn on h6 stops ♘g5, which is a Black concern in some tree branches.

3 ♕b2

White appreciated that 3 ♗f1 was consistent but 3...♗xf1 leaves him with weaknesses on light squares. Another move, 3 ♘e5, would also be consistent because ...♘xd4 is impossible. But White realized 3...♘xe5 4 dxe5 ♘d7 was excellent for Black (and 4...♘g4 is even better).

3 ... ♗d6!

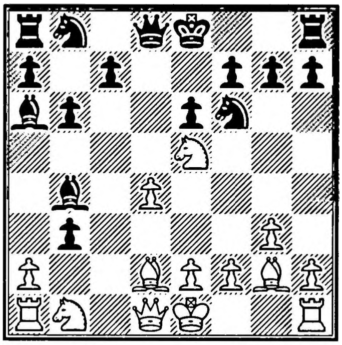
Black, who is readying ...e5, has won the battle of waiting moves. He obtained an obvious edge after 4 b4 ♗d3 5 ♘e1 ♗c4 6 ♗f1 ♗xf1 7 ♔xf1 e5! and won swiftly.

RECHECKING

You are not done refining a candidate until you've made sure it isn't a blunder. This sounds obvious to people who don't play chess. "Shouldn't you start by looking for that?" they wonder. "And if you've looked at a move for 20 minutes wouldn't you know by then whether it loses the queen?"

No, because of the law of diminishing tactical returns. Spending many minutes to work out the branches of a tree does not decrease your risk of a simple oversight.

Petran-Adorjan
Szirak 1985



White to play

Black has just played ...cxb3. White invested 80 minutes on:

1 ♘c6??

Presumably he was working out the details of 1...♗xd2+ 2 ♕xd2 ♕d6 3 ♘b4 or 2 ♘xd2 ♘xc6 3 ♗xc6+ ♔e7 4 ♗xa8 ♕xa8.

1 ... **b2!**

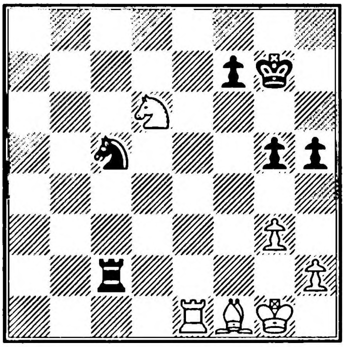
White loses material because of a move that was starting him in the face.

Many players avoid blunders by following a policy recommended by the Soviet player Benjamin Blumenfeld. He explained it to Alexander Kotov by noting how a player can "see things far in the distance but miss something right under your nose."

"Now I follow this rule," Blumenfeld said. After settling on a candidate, he said that he takes a mental break to see what simple reply he may have overlooked. "In the course of a minute before making the move on the board I look at the position with the eyes of a patzer. Yes, yes, a patzer, a beginner. I'm not talking about complex variations but simple possibilities: No mate in one? Good! My queen's not hanging? And the rook? The knight? The bishop? Then I verify I'm not losing a pawn." And so on. Had White followed Blumenfeld's rule he would have quickly spotted 1...b2.

A more rigorous technique of rechecking is needed when you are about to play a candidate that depends on a follow-up. You should verify your analysis by challenging its basic assumptions. For example, "Is every 'forced' reply by my opponent really forced?" Sometimes a 25-minute think about 1 ♖xg5 is based on checkers calculation. "Of course, he must recapture on g5" you think – but it turns out to be untrue. Here's a striking mis-assumption.

Andersson-Christiansen
Biel 1991



Black to play

Black had to give up his bishop a few moves earlier to stop a pawn from queening.

1 ... **♘e6**

White should win in the long run. But he saw a combination that would save him at least a dozen moves. He played it without challenging a basic premise.

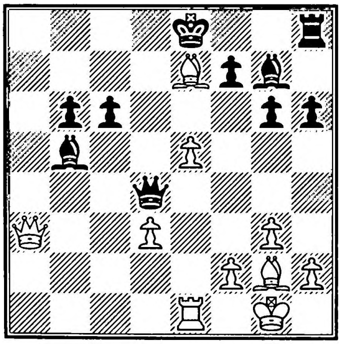
2 ♘xf7?? ♔xf7

Only now did White realize that 3 ♗d5, the move he intended, was not possible. He agreed to a draw.

Almost every master has a cautionary tale like that to tell about himself. Or herself: Zsuzsa Polgar revealed how she once spent 10 minutes during a tournament game trying to figure out what to do if her opponent played ...0-0-0 – forgetting that the move was illegal because Black had played ...♖a4 and then ...♖a8 much earlier.

Faulty assumptions occur with alarming frequency when you think you are sealing the game's fate, as with 2 ♘xf7. Here's another case; White trapped Black's king in the center with his last move, a capture on e7. His threats include ♗f6 (or ♗d6) followed by ♕a8+.

Kharlov-Morozevich
Russian Championship 1995



Black to play

The game appears over, e.g. 1...♕d7 2 ♗f6! (2...♗xf6 3 exf6+ and ♖e7) or 1...♕a4 2 ♕d6 ♕a8 3 e6.

1 ... c5

2 ♗f6??

Black can resign after 2 ♗d6.

2 ... 0-0

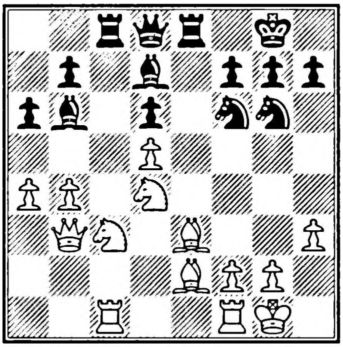
White shuddered when this move was played instantly. Of course, he hadn't considered it to be legal. But it is and suddenly White's attack is over. Black soon won a pawn (3 ♕b3 ♗xd3 4 ♗xg7 c4!) and the game.

Mikhail Botvinnik was so fanatical about rechecking that he wrote notes to himself before tournaments detailing how he should verify his analysis in particular games. Before he played Vasily Smyslov in the 1945 Soviet Championship he wrote, "Calculate variations two times, don't overlook a single move!" Before he faced Vitaly Chekhover he wrote, "Calculate variations three times and look out for swindles" – and underlined "three times."

On the other hand David Bronstein said double-checking was his curse. "I wonder how many delightful combinations I have ruined in my many years of tournament player only because of the fact that I noticed a countercombination for my opponent, a combination which he was most likely not even thinking about and, more often the case, which was just not there at all!"

But at the risk of costing yourself a brilliancy a la Bronstein, it pays to rigorously review your analysis for oversights. Even if you've worked out a five-move forcing sequence, take each opportunity to recheck. Since you only make one move at a time, you will get an opportunity to confirm your analysis at move two and then again at move three and so on.

Lautier-Topalov
Elista 1998



White to play

Black realized his position was brimming with tactics, such as the threat to win two pieces for a rook with 1...♗xd4 2 ♗xd4 ♖xc3! and 3...♖xe2.

In addition, a standard positional sacrifice, ...♖xe3!?, is in the air. Black can follow with ...♕e7, after which the threat of ...♕xe3+/...♗xd4 is hard to meet.

While White's clock continued to run, Black concluded his opponent had to play something like 1 ♖fe1, which stops the 1...♗xd4 combination and discourages 1...♖xe3 2 fxe3 ♕e7 because White can defend the e-pawn by moving his bishop.

1 ♖fd1??

Black was stunned by this. He calculated five moves ahead, liked what he saw and didn't consider any other candidate.

1 ... ♖xe3!

2 fxe3

One of Botvinnik's training methods was to set a one-minute sandglass (!) next to his board when playing a practice game so that he could make sure he spent at least that much time before making a move, no matter how obvious it was. That might have spared Black from playing:

2 ... ♕e7?

Black confessed afterward that he was overcome with emotions because he thought the game was essentially over. If he had exercised more self-control he would have asked himself whether there was difference between 2...♕e7 and 2...♕e8.

There is. After 2...♕e8! Black wins because 3 ♘a2 allows 3...♖xc1 4 ♘xc1 ♗xa4! (or 4 ♖xc1 ♗xd4 5 exd4 ♕xe2).

3 ♘a2 ♖xc1

4 ♘xc1!

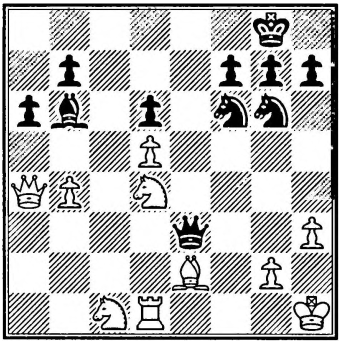
Thanks to Black's failure to recheck at move two, White can fight on.

4 ... ♗xa4!

Black hadn't exhausted his tactical ideas.

5 ♕xa4 ♕xe3+

6 ♔h1



Black's intention when he played 4...♗xa4 was to continue 6...♗xd4. That would leave him with two pawns for the Exchange but, more significantly, a powerful hold on the kingside. He would have ...♘e4 and a check on f2 or g3 coming up.

But when this position arose on the board, Black's level of expectations prompted him to look for a faster win.

6 ... ♘e4?

For the second time in the game, Black's emotions cost him a chance to recheck his analysis. His story had a happy ending because White counter-blundered with 7 ♘f5? and Black won with 7...♘f2+ 8 ♔h2 ♕e5+ 9 ♘g3 ♘e4.

But White missed his chance to make it a game again with 7 ♕e8+ ♘f8 8 ♘e6! because after 8...fxe6 9 dxe6 he has mating threats of 10 ♕f7+ and 10 e7. White would be a bit better in the ending after 9...♕f4 10 ♕f7+.

Rechecking is the final step of the process that begins with the search for candidates. In the final two chapters we'll deal with questions that are more sophisticated and less explored, such as how much certainty and confidence you need to go ahead and play a move.

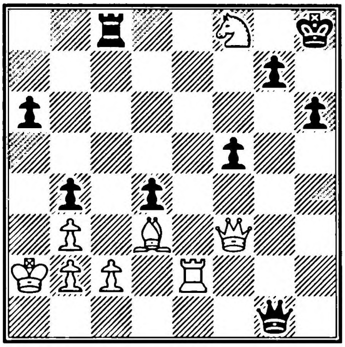
10: Clarity and Risk

We think that we think objectively, scientifically, based on rigorous standards of logic and rationalism. In reality we often reject a candidate for reasons that aren't anything of the sort. We're influenced by doubt, fear and uncertainty – in short, by how we feel about the candidate.

For example, we may not trust our calculation because of the danger of an oversight. Or despite all the objective reasons why a candidate should be played, we decide another move is preferable because it makes our future moves easier to find or it makes it harder for our opponent to make good decisions.

These reasons shouldn't be dismissed because they are subjective. After all, you should feel as confident as you can be about the moves you play on the board.

Anand-Kamsky
Linares 1994



Black to play

White has just captured a rook on f8 and is two pieces up. But Black has one desperate role of the dice left.

1 ... ♖c5

The sudden threat of 2...♖a5 mate – in a position that seemed dead-won for White – might send some players into a panic. Instead, it sent White into deep calculation because there seemed to be two winning defenses.

The pretty line is 2 ♕xf5 and then 2...♖xf5 3 ♗xf5, with mating ideas such as 4 ♗g6 and ♖e8, or, after 3...g5, with 4 ♖e7 and ♘g6+. White looked further and found an apparent win after 3...♕f1 4 ♖e5 g5 5 ♘d7!.

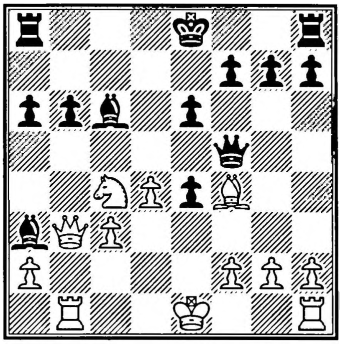
2 ♘g6+!

But why get fancy when you can remain at least a piece ahead with simple moves (2...♔h7 3 ♖e5)? Black played 2...♕xg6 but the mate threat was over after 3 ♖e1 and so was the game.

What mattered to White was not how many extra pieces he could keep. It was the clarity of the win after 3 ♖e1, compared with the vaguer possibilities up the 1 ♕xf5 tree. This is a standard that masters depend on.

"Make the move when there is full clarity," Botvinnik wrote to himself before his second game in the 1945 "Radio Match." He felt he should keep analyzing each candidate until he reached a critical mass of certainty.

Botvinnik-Denker
U.S.S.R.-U.S. match 1945



White to play

Black has just played his queen from a5, the one move that averts the immediate loss of a piece. White's candidates, in descending order of force, are 1 ♘d6+, 1 ♕xa3, 1 ♘xa3, 1 ♗d6 and the various retreats of the bishop. When he begins analyzing he sees that 1 ♘d6+ ♗xd6 isn't much. But each of the other candidates is worthy of being analyzed at least two or three moves further – or whatever it takes to reach "clarity."

1 ♗d6!

This bishop move is the only move that leads to a significant advantage that White can be confident of. After 1 ♕xa3 ♕xf4 2 ♖xb6 ♗d5 Black is still fighting, and 2 ♘xb6 e3!? isn't worth White's trouble analyzing if he has a reasonable alternative.

1 ... e3

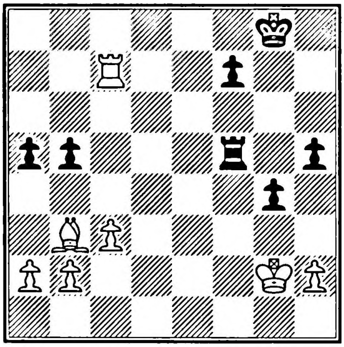
This is the only complication Black can offer. There can be no doubt about 1...♗d5? 2 ♗xa3 b5 3 ♘d6+ or 1...♝xd6?? 2 ♘xd6+.

2 ♘xe3!

When he saw this move in his analysis of 1 ♗d6 White could feel confident of reaching "full clarity." Black's queen and bishop are hanging and his best chances lie in the lost 2...♛xb1+ 3 ♕xb1 ♗xd6 4 ♛xb6 ending. The game was over in nine more moves.

Full clarity is an ideal. Don't expect to reach it every time you calculate or even in most situations. But relative clarity is an invaluable criterion when comparing candidates. If you can achieve a higher degree of certainty about one candidate than another, you will probably feel more comfortable playing the first – even if the latter is objectively superior.

Kasparov-Yusupov
Minsk 1979



White to play

Computers will recommend moves such as 1 a4, to create a passed pawn, or 1 ♖d7, to force rooks off with 2 ♖d5.

1 ♖xf7

But after thinking 15 minutes White made this subjective choice. It gives up all of his material advantage. But after 1...♖xf7 2 ♔g3 he can force a king-and-pawn ending in which he enjoys an outside, passed c-pawn.

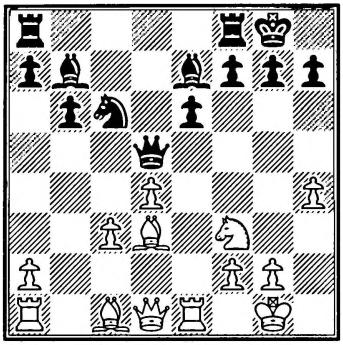
White's subsequent moves are elementary and Black could easily resign here. He waited until after 2...a4 3 ♗xf7+ ♔xf7 4 ♔h4 ♔g6 5 b3 a3 6 c4 bxc4 7 bxc4 ♔f5 8 ♔xh5 ♔c4 9 ♔xg4 ♔d4 10 h4.

PLAYING IT SAFE

In one of Emanuel Lasker's last tournaments, an opponent left a piece hanging. Lasker didn't take it and quickly played something else. When asked why, he explained that when a strong player puts material en prise, there is good reason to suspect a trap and good reason not to waste time looking for the trap.

Peace of mind is another subjective criterion. It has obvious virtues but equally obvious flaws. For example, Lasker's logic assumes (a) an opponent wouldn't dare bluff him with an unsound sacrifice and (b) his opponent didn't just miscalculate. But the tournament player has to be a bit more skeptical. Trusting an opponent, a la Lasker, may just allow him to get away with a bold but dubious move. Here's a case of playing it safe and then playing it risky.

Anand-Timman
Moscow 1992



White to play

Black's last move, ...♕d5, was an innovation. White responds with an intuitive move that is commonly played in similar positions.

1 ♖b1?!

White didn't analyze 1...♕xa2 in depth because he figured if it was played, he could probably find a way to trap the queen or, failing that, he might develop a strong attack via 2 ♖b5 and ♖h5. The queen does get trapped in some lines such as 2...♘a5 3 ♖e2 ♕a1 4 ♖b1 ♕xc3 5 ♖c2.

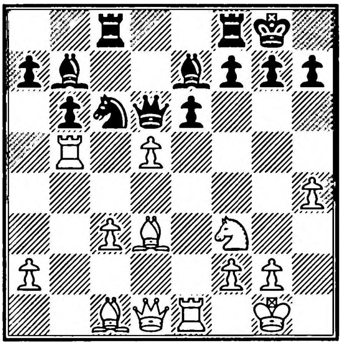
1 ... ♖ac8

But that's just some lines. The best White would have after 1...♕xa2! 2 ♖b5 ♗a6 is a draw by repetition (3 ♗b1 ♕c4 4 ♗d3 ♕a2). With 1...♖ac8 Black places too much trust in his opponent. You pay a price for safety in chess as in life.

2 ♖b5 ♕d6

3 d5!

Black's caution has granted White strong tactical chances, including a kingside attack with ♘g5. White's last move is based on a trap, 3...exd5 4 ♖xd5 ♕xd5?? 5 ♗xh7+.

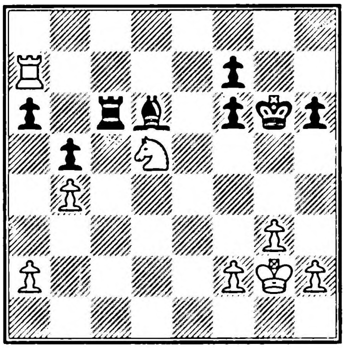


This was Black's second opportunity to choose between a risky candidate and a safe one. He passed up the super-cautious 3...♘d8 and tried to punish 3 d5 with 3...♗a6 4 dxc6 ♖fd8. But he overlooked 5 ♕a4, which wins.

Both, 1...♕xa2 and 3...♗a6 looked risky. But there is a difference between risky-looking and risky moves. The difference lies in your ability to calculate as much of the consequences as you can and to feel comfortable with what you've seen.

If you are fairly certain your analysis is correct you can find yourself picking candidates that look highly suspicious.

Karpov-Kramnik
Vienna 1996



White to play

1 a3!

Only after the game was over did it become evident that this and b2-b4 a few moves earlier were critical to White's victory. They secure the safety of his queenside pawns and free his knight.

But during the game these moves seemed extraordinarily risky because they fixed White's pawns on the same color squares as Black's bishop. White could only play the moves with confidence if he had analyzed far enough to be sure he was winning even if he lost a pawn.

He was right. White won after 1...♔f5 2 ♘e3+ ♔g6 3 ♔f3 ♗e5 4 ♘d5 ♔g7 5 ♘e7! ♖c3+ 6 ♔g4 ♖xa3 7 f4 ♗c3 8 ♔h5! followed by ♘f5+, ♘xh6 and ♘xf7. "Good nerves and faith in your calculations is needed to make such moves," White wrote of 1 a3 in *New In Chess*.

SAFETY VERSUS CERTAINTY

But some positions cannot be calculated that well and few players in history have been able to calculate to Karpov's degree of clarity. How do you reconcile these two subjective criteria, safety and certainty?

This is an extraordinarily difficult matter. No ironclad rule seems possible but you might apply a rough guideline:

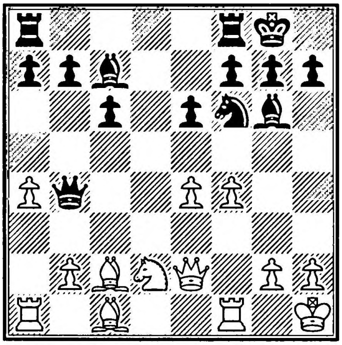
When you have a choice between two promising candidates, try to determine how much riskier one is than the other. Then try to determine how much clearer the analysis of one is compared with the other.

Finally, give preference to the candidate that has the greatest difference in the two criteria.

For example, if the candidates appear to be roughly equal in terms of risk, play the move that you can calculate further. The candidate that you can analyze four moves ahead is probably more trustworthy than an alternative that can't be analyzed more than two moves.

If, on the other hand, you can calculate both candidates four moves ahead with roughly the same degree of certainty, pick the one that has the least risk. Let's see how this works ...

Euwe-Alekhine
World Championship match,
seventh game 1937



White to play

1 g4

White makes the best of his pawn-down position. He threatens f4-f5, which would either win the g6-bishop or overrun the kingside with White pawns.

1 ... ♖ad8!

Alexander Alekhine was notorious for making exaggerated claims about how much he saw during a game. But here he conceded he couldn't see far at all. He said in his book on the match that he rejected 1...h6 because of 2 ♕g2 followed by 3 ♖a3 and eventually f4-f5, which leads to "a dangerous attack, the outcome of which would be impossible to foresee."

2 f5 exf5

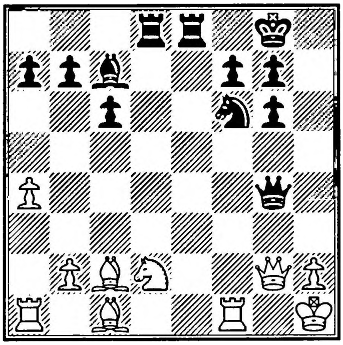
3 exf5 ♖fe8

4 ♕g2 ♕xg4

Alekhine also admitted that his sacrifice "could not possibly be exactly calculated" back at the diagram. Full clarity just wasn't possible. He chose 1...♖ad8 over 1...h6 primarily because he could analyze the sack as far as move five, whereas he couldn't be sure of anything that was happening after 1...h6 2 ♕g2.

In other words, Black chose clarity over risk because there was a big difference in clarity and, it seemed to him, a lesser difference in risk.

5 fxg6 hxg6



A second subjective factor in Black's decision was that it is much easier to find Black's moves than White's from here on. We'll elaborate on this later in the chapter but for the time being note that the natural 6 ♘f3 allows a strong 6...♕xg2+ 7 ♔xg2 ♘g4, with a threat of ...♖e2+ (8 ♗d1 ♖xd1! 9 ♖xd1 ♖e2+ 10 ♔g1 ♗b6+ 11 ♔f1 ♖f2+).

6	**♗d1**	**♕xg2+**
7	**♔xg2**	**♖d4**
8	**♘f3**	**♖g4+**
9	**♔h3**	**♖d8**

The threat of mate via ...♖d5-h5+ pushed White over the edge and he lost following 10 ♗g5 ♖b4 11 ♗d2 ♖e4 12 ♗b3? ♖e2 13 ♗c3 ♖d3 14 ♔h4 ♖xf3! 15 ♖xh3 ♖xh2+ 16 ♖h3 g5+.

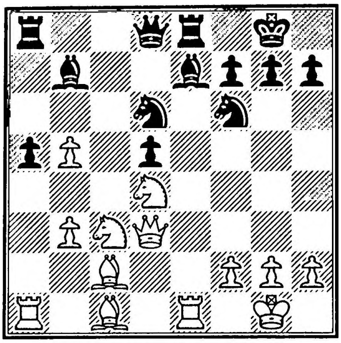
DROWNING

If you find yourself spending more than 15 minutes on a candidate and not coming to firm conclusions, it pays to ask yourself: Is clarity possible? Is it likely that I'll see enough in another five, ten or 15 minutes to feel confident that this move is the right one – or that it is even playable?

If the answer is "No" then you have to decide how much you can trust your intuition. Many of Mikhail Tal's greatest sacrifices were based on gut feelings. He "tasted" a few key, forcing lines and came to the conclusion that he liked the candidate. He didn't try to analyze everything – and sometimes paid the price by overlooking a quiet but strong reply at move two or three.

On the other hand, there are many players who don't like to make a decision that seems like more of a guess. When they find themselves drowning in complications, they choose a common-sense alternative. Even if they can't see far beyond the first move, its solidity makes it the right choice.

Kasparov-Ivanchuk
Linares 1999



White to play

White's optimism had been growing for the previous few moves and here he saw that 1 ♘c6 virtually forces 1...♗xc6 2 bxc6. That swap would expose Black's d-pawn to pressure, undouble White's b-pawns and garner the two bishops.

White expected to be close to a win after 2 bxc6. But when he examined 2...♘de4 he wasn't sure he had an edge. It seemed that 3 ♘xd5 ♕xd5 4 ♕xd5 ♘xd5 loses (5 ♗xe4 ♗b4). But in fact 5 ♖xe4 ♗f6 6 ♖xa5! works.

"This was a psychologically difficult moment for me. I didn't see a direct win anywhere," White recalled. He spent "a whole hour on every possible calculation" but each line ran into "fantastic variations of defense."

1 f3!

In the end he stopped worrying about finding the best move and settled for one he knew would be good. It takes e4 away from the enemy knights and allows White to complete his development favorably.

1 ... ♖c8

This stops ♘c6. But White has other ideas that can be carried out with low-calc moves.

2 ♘a4 ♗f8

3 ♗g5! g6

The threat was 4 ♗xf6 and mate on h7. White's next move prepares ♕f4.

4 ♕d2

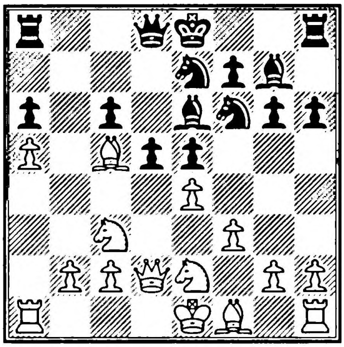
None of White's moves were hard to find. Yet his edge is indisputable and it grew after 4...♖xe1+ 5 ♖xe1 ♘de8 6 ♖e2 ♗b4 7 ♕e3. Within a few moves he had a won endgame.

CLARITY AND CONFIDENCE

In the last two examples, the players who made the critical decisions were insuring themselves against oversight. By opting for 1...♖ad8 and 1 f3, they tried to protect against the surprise enemy move that they couldn't see but which might be lurking in the tree branches and could cost them the game.

That's a sound policy but it can be carried too far. If you feel fairly confident in your analysis, it's foolish not to go ahead and pull the trigger.

Ulibin-Svidler
Russian Championship 1998



White to play

White has the option of a solid positional maneuver in 1 ♘c1 and 2 ♘b3. But he wanted to attack.

1 0-0-0?

Black looked at 1...♕xa5 and saw that the only dangerous reply to worry about was 2 ♗xe7. Black must avoid 2...♔xe7?? 3 ♘xd5+. This suggests that 2...♕a1+ 3 ♘b1 ♔xe7 is best.

Black spent 25 minutes examining this tree branch and naturally looked at the most forcing continuation, 4 ♕b4+. He concluded he would have the advantage after 4...♔e8! (e.g. 5 ♖d3 d4! 6 ♖a3 ♗a2). But:

1 ... 0-0?

He played the safest move anyway because he didn't trust his analysis. He eventually won – no thanks to 1...0-0.

The danger of making an oversight is different from the risk described earlier. When Alekhine rejected 1...h6 it wasn't because he had analyzed it extensively and was afraid he had overlooked a surprise move by his opponent. It was because he couldn't analyze 1...h6 extensively and couldn't be sure that 2 f5 wasn't just a winning move.

But in the last example a fairly high degree of clarity was possible. It was obvious that 1...♕xa5 promised a greater reward than any other candidate. The only way it could go wrong is if White overlooked a surprise move.

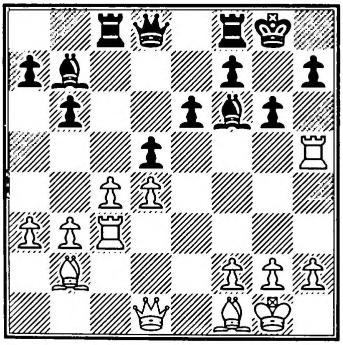
How do you evaluate the danger of making an oversight? Again there is no golden rule. But another guideline may help: You can weigh the risk of oversight against the benefits that would accrue to you if there is no oversight.

When a candidate promises a significant improvement in your chances, don't reject it just because an innocuous alternative would have less danger of an oversight. In the last example there was a big difference in the benefits of 1...♕xa5! and 1...0-0?. The rather slim chance of an oversight after 1...♕xa5 just wasn't worth passing up a pawn.

On the other hand, if the alternative promises nearly as much as the first candidate but with less danger of oversight, you should err on the side of safety. White played 1 ♖xf7 on p.197 because it reduced the position to a king and pawn ending in which the chance of oversight was negligible. There were other moves that could be objectively superior. But if they all win 1 ♖xf7 was the best choice.

In one of the pivotal games of Vasily Smyslov's career he had to choose between two apparently winning moves and decided to play it safe.

Keres-Smyslov
Candidates Tournament 1953



White to play

In response to Black's last move, ...g6, White came back with the dramatic:

1 ♖ch3!!?

Black sank into a big think. He concentrated on 1...gxh5 2 ♕xh5 ♖e8. He calculated and calculated.

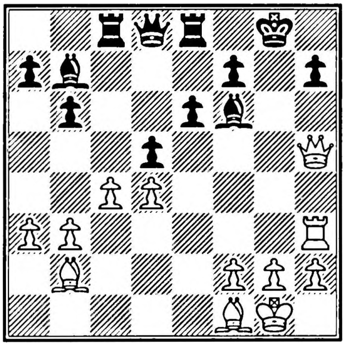
But in the end he played his second candidate, 1...dxc4. That threatens to take the rook on the next move (2 bxc4?? gxh5 3 ♕xh5 ♗e4! with a trivial win since h7 is protected).

Black's choice proved successful. The attack died after 1...dxc4 2 ♖xh7 c3! 3 ♕c1 ♕xd4 4 ♕h6 ♖fd8 and he went on to win the game, the tournament and the right to play a match for the world championship.

But after the game the annotators criticized him for taking the safe, second-best way out. They pointed out that White might have managed to draw after the superior 2 ♕g4!. Instead, they said Black should have analyzed the rook sacrifice until he reached a degree of clarity.

1 ... gxh5

2 ♕xh5 ♖e8



Oh, but I did, Black said. "I wanted very much to take the rook, the more so because I did not see how White would win here." But he also acknowledged that he might be missing something in the 2...♖e8 tree. The position seemed too dynamic to take that risk.

His judgment was proven correct in the post-mortem. It turns out that White can draw with 3 ♕h6 dxc4 4 d5! because of 4... ♗xb2 5 ♖g3+ ♔h8 6 ♖h3 ♔g8 7 ♖g3+.

But he also has a stronger alternative, 3 a4!! with powerful mating threats of ♗a3/♕xh7. There is no salvation in lines such as 3...♕d6 4 c5! bxc5 5 ♕h6 or 4...♕f4 5 ♖f3.

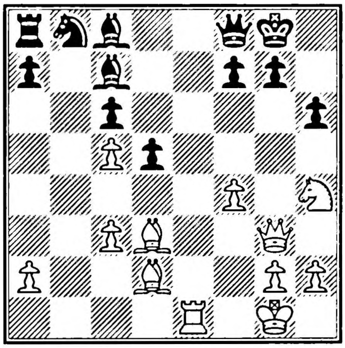
In other words, both 1...dxc4 and 1...gxh5 seemed to win but actually led to unclear situations in the worst-case scenario. The critical factor, in Black's mind, was the different levels of oversight risk. He felt less confident about 1...gxh5 because the price of oversight (3 a4!!) was considerable and might cost him the game. The price of an oversight in 1...dxc4 was much less.

RISK TOLERANCE

The degree of clarity you can achieve for a particular candidate will depend on your calculating ability. But how much risk you are willing to tolerate is not a matter of skill. It's a highly subjective willingness to expose yourself to danger.

Let's examine the thinking of a mainstream player with a practical level of risk tolerance.

Anand-Piket
Wijk aan Zee 2001



White to play

All of White's pieces are active while none of Black's are. This could prove decisive if White can find a kingside target. He began by analyzing the most forcing move, 1 ♘g6. After 1...♕xc5+ White can reply 2 ♗e3 with the idea of 3 ♗d4, creating mating threats against g7.

White analyzed 1 ♘g6 as far as 1...fxg6 2 ♕xg6 (threatening ♖e8) ♗d7 3 ♕h7+ ♔f7 4 ♗g6+ ♔f6 before he stopped.

As a result he never found the killer (5 g4!, threatening 6 g5+ and mates). The reason he broke off his analysis was to examine another candidate that suddenly occurred to him.

1 ♗e3!

This jumped to the top of White's list of candidates because it might win without a sacrifice or the risk of an oversight. The bishop move is another case of recycled idea: Once you consider ♗e3 as an answer to 1...♕xc5+, you will notice how strong the bishop is on d4. You would then see how 1 ♗e3 threatens 2 ♗d4 followed by 3 ♖e8 ♕xe8 4 ♕xg7 mate.

1 ... ♘a6

2 ♗d4

White also threatens to win with an improved version of the knight sack (3 ♘g6).

2 ... g5

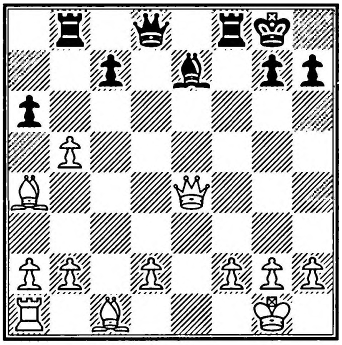
Stopping ♖e8 with a bishop move also loses, e.g. 2...♗d7 3 ♗xa6 or 2...♗b7 3 ♘f5.

3 ♕f2 Resigns

Resignation seems early but Black has no adequate answer to the threat of fxg5 and ♕f6-h8 mate. For example, 3...gxh4 4 ♕xh4 and now 4...f5 5 ♕h5 followed by 6 ♖e8 or 6 ♕g6+.

Taking risks may require you to consider all three possibilities – win, draw and loss – in a position in which your expectation previously told you only the first two results were possible. In the last example White didn't pursue 1 ♘g6, a sacrifice that could have turned out to be unsound and cost him the game, when he found a no-risk alternative that, at worst, would leave him with a draw. But suppose we raise the ante.

Topalov-Lautier
Linares 1995



Black to play

White has three pawns for the Exchange. He expected to lose one pawn after 1...axb5. But he can respond with a bishop check (or 2 ♗c2) followed by 3 d4. Then "only White can play to win, risking nothing," he wrote.

1 ... ♗f6!

But now he saw that 2 d4? ♗xd4 would give up a pawn without solving his problems. Trying to complete development with 2 d3 instead would allow Black, after 2...axb5 3 ♗b3+ ♔h8, to threaten a powerful ...♗d4.

Then 4 ♖b1 would be much too slow. But allowing ...♗xb2 would surrender most of his winning chances – and some of his drawing chances.

Should White head for safety by giving up two pawns to get out of the opening? That might risk losing the ending. Clarity and risk of oversight don't seem to be major factors because the 2 d3 and 2 bxa6 trees are equally obscure.

2 bxa6!

This looks very risky, both because it allows Black to continue building pressure and because Black's moves are easy to find while White's are very difficult.

2 ... ♗d4

3 d3!

White grants Black a choice of captures on f2. But in reality, White's position is fine. For example, 3...♗xf2+ 4 ♔h1 ♕f6 can be calmly answered by 5 ♗d2 ♗d4 6 h3 when White can complete his development and keep at least one extra pawn.

Black put him to a greater test, with 3...♖xf2 4 ♗e3 ♖bxb2! 5 ♗b3+ ♔h8. He would win after 6 ♗xd4 ♖xg2+ 7 ♔f1 ♕f8+ 8 ♔e1 ♖bf2!, for example.

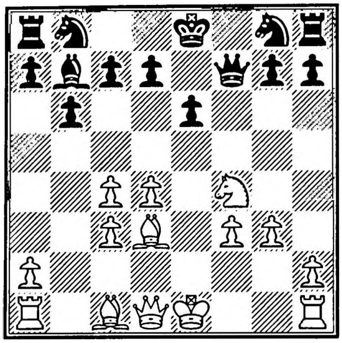
But after 6 ♖e1! White survived (6...♖xg2+ 7 ♕xg2 ♖xg2+ 8 ♔xg2). Thanks to 2 bxa6! and 3 d3! he had retained winning chances, not just drawing chances. His tolerance of risk paid off.

WHEN MESSY IS GOOD

Clarity is more important to the player with the advantage than to his opponent. If you have the inferior position you usually want matters to be impossible to calculate because that increases the likelihood that your opponent will make a bad decision.

Vishy Anand, commenting on a bad position he had with Anatoly Karpov, explained why he chose a complicating move: "This is the best way to fight, to make the game as messy as possible. If you go in for the simple lines, most players, and especially Karpov, will calculate everything straight through."

Donner-Miles
BBC Master Game 1979



White to play

White believed he had an edge and considered routine candidates such as castling. But he concluded that if Black were able to play ...♘f6 "he really has a kind of position" – that is, something he felt Black didn't deserve.

1 ♗e4

But if White can trade off Black's only developed minor piece, he would stand very well, he reasoned. He added that 1...♘c6 allows 2 d5 with "an overwhelming position."

Black also believed 1 ♗e4 was the most dangerous move. He first looked at 1...♗xe4 2 fxe4 and then 2...♘e7 3 0-0 0-0 but evaluated it as much better for White because of his center and superior minor pieces. He also rejected 1...c6 and 2...d5 out of hand.

"The only other move," he said was 1...♘c6 and the worst-case reply was probably 2 d5. That would be "murky" and "messy" in lines such as 2...exd5 3 ♗xd5 or 3 ♘xd5.

1 ... ♘c6

But messy is good when it means that both sides have weaknesses. By process of elimination this turned out to be the best chance.

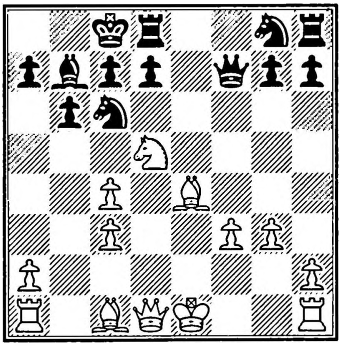
2 d5

White felt obligated to respond sharply before Black plays ...♘f6.

2 ... exd5

Here White suddenly realized that 3 ♗xd5 ♕f6 wasn't particularly good. He was misled by high expectations:

3 ♘xd5? 0-0-0

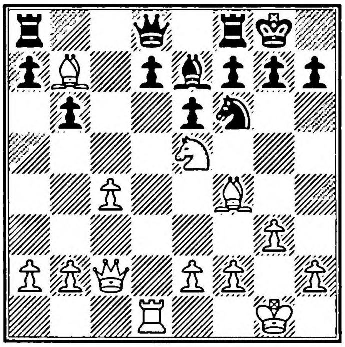


Murky has turned out excellently for Black. He stood well after 4 ♗e3 ♘f6 5 ♘xf6 ♕xf6 and was much better after 6 ♗d4? ♘xd4 7 ♕xd4 ♗xe4 since White cannot allow 8 ♕xe4 ♖he8. He would lose a pawn after 8 fxe4 ♕xd4 9 cxd4 ♖de8 or, as the game went, after 8 ♕xf6 gxf6 9 fxe4 ♖de8.

Messy is good for the defender when he can present his opponent with choices. That's true even when they are choices between good moves. Alexander Morozevich made this point when he found himself a pawn down with little compensation at Pamplona 1994-5: "A definite plus of my position lies in the fact that Black has too many possibilities and it's impossible to find the best one with exact calculation." (He eventually won when his opponent lost his way in the complications.)

Another case of process of elimination leading to the messy, practical candidate was:

Timman-Seirawan
Amsterdam 1992



Black to play

This arose at the tail end of a combination that left White temporarily down the Exchange but assured of regaining it (1...♖b8 2 ♘c6!). Black has four candidates that seem worth analysis.

He rejected 1...a6 because after 2 ♗xa8 ♕xa8 3 ♘xd7 he is a pawn down "with zero compensation," as he put it.

Black also considered 1...♖c8 but 2 ♗xc8 ♕xc8 3 ♕a4 will cost him a pawn, with no better chances than after 1...a6. These two trees were fairly distinct – and much too clear to play against a good technician.

Black also considered a more complex line (1...d5 2 cxd5 exd5) but didn't like his prospects after, say, 3 ♘c6 ♕d7 4 ♗xa8 ♖xa8 5 ♘xc7+ and 6 ♗g5.

1 ... **♖b8!**

This was the only candidate Black had left. He made sure there were no tricks that would win for White immediately and took the plunge.

2 **♘c6!** **dxc6!**

3 **♖xd8** **♖bxd8**

4 **♕a4** **♗d6**

Black has given up his queen for two rooks and is still worse. For example, after 5 ♗g5 ♗e5 6 b4 and ♗xc6 White will emerge with an extra passed pawn or two on the queenside.

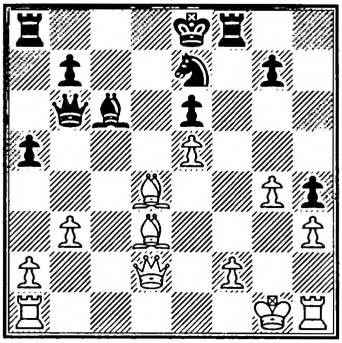
However, the material imbalance gives Black much better practical chances than in the clearer 1...a6 or 1...♖c8 lines. (In fact, Black had excellent survival chances after White played 5 ♗xc6? ♗xf4 6 gxf4.)

MAKING YOUR OPPONENT WORK

There is one other subjective criterion to consider, the degree to which a candidate makes future moves easier or harder to find. We saw on p.197 how White chose 1 ♖xf7 because it made his remaining moves of the game fairly automatic. On p.207 we saw a quite different situation: White was reluctant to play 2 bxa6, the move that was objectively best, because he would have to follow it up with very exact moves, while his opponent would have a much easier time.

If two candidates seem otherwise equal you should give preference to the one that makes your future moves easier to find – or your opponent's moves harder for him to choose. You want to pick candidates that force the opponent to work. The harder the work, the better.

Kholmov-Petrosian
Soviet Championship 1949



Black to play

Whether Black can prove his superiority will depend on the next few moves. He played 1...♕c7?, after which 2 ♕e3 ♗xh1 3 ♔xh1 would allow White "to escape all his difficulties," Black wrote. He added that the best move was:

1 ... ♕xd4!

2 ♗g6+ ♘xg6

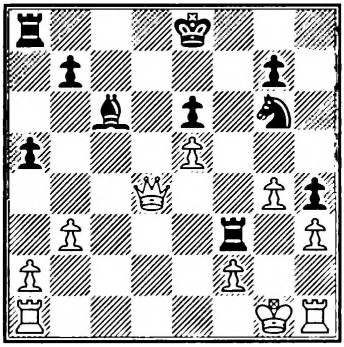
3 ♕xd4

Computers like 3...♖d8 or 3...♘f4 but Black preferred a squeezing move.

3 ... ♖f3

Black's little combination has left him with two minor pieces for a queen and pawn. But he has all the play.

He cited 4 ♖c1 ♘f4 and 4 ♖e1 ♖d8 5 ♕c4 ♘f4 6 ♖h2 ♖d2 as examples of how the position would favor him. But the critical factor in favor of 1...♕xd4! was not the objective value of the sacrifice.

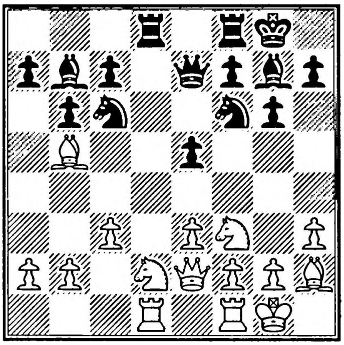


"In a practical game it would have been much easier playing Black," he wrote. Black can steadily improve his position with moves such as ...♘f4, ...♖d8, ...♔f7, and then putting the QR on d5, d2 or, in some cases, d4. White, on the other hand, has to sweat his way through the tactical labyrinth.

In retrospect, 1...♕xd4 was objectively and subjectively the best move. But often a player may benefit from selecting a second-best move simply because it poses more problems than the objectively best move.

Taimanov-Korchnoi

Leningrad Championship 1973



Black to play

By advancing his pawn to e5 Black severely restricted White's h2-bishop. He has reason to believe he is more than equal. Candidates such as 1...♘d5 and 1...♘d7 suggest themselves.

1 ... e4!?

Viktor Korchnoi has said he prefers to play "the man" rather than "the position" and he does that here. White would have an easier time making decisions after 1...♘d5 2 e4 ♘f4 3 ♗xf4 exf4 3 ♖fc1 or 1...♘d7 2 ♕c4.

2 ♘d4 ♘b8!

Suddenly White has to worry about his minor pieces being driven back or even trapped after ...c5, ...a6 and ...b5.

Black rejected a natural candidate, 2...♘e5, because White can free his game with simple moves – 3 ♗xe5 ♕xe5 4 ♘c6 and then 4...♗xc6 5 ♗xc6 ♖d3 6 f3.

3 a4

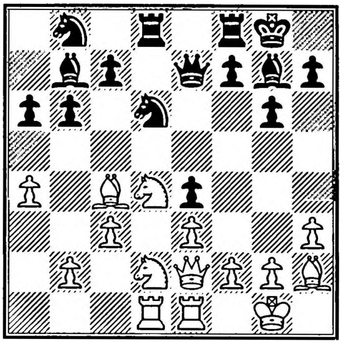
White's choices are difficult to analyze and evaluate. He could voluntarily withdraw the bishop with 3 ♗c4 and meet 3...a6 with 4 a4. But he may have felt Black was making too much progress after 3...c5 4 ♘b5 a6 and 5... b5 or 4 ♘4b3 ♖d7 and 5...♖fd8.

3 ... ♘e8!

Another fine retreat, preparing to embarrass the bishop with ...♘d6. Black believed the best reply was 4 ♖a1. But he correctly reckoned that White would be psychologically unwilling to make such a move.

4 ♖fe1? a6

5 ♗c4 ♘d6



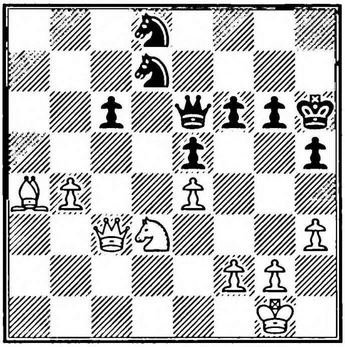
Black's policy of keeping material on the board and forcing his opponent to think has given him the edge. This became evident after 6 ♗a2 c5 7 ♘c2 ♗c6 8 ♘c4 ♘xc4 9 ♗xc4 ♗xa4 and he won the endgame.

11: Clock Consciousness

Once you've chosen a candidate you should play it without regrets, second thoughts or wavering, said Jose Raoul Capablanca. "Having once thought of an idea and decided that it is good, many players fear to make it. Wrongly!" he wrote.

But when you can't decide that it is good, there are two dangers. One is, of course, that you will choose an alternative, inferior move. The other danger is that you'll spend too many minutes making a choice. Because tournament players have to live with the chess clock, the two dangers can combine to cause anxiety, confusion and occasionally a fatal panic.

Browne-Donner
BBC Master Game 1979



White to play

White's position has been improving steadily. Here is how his thinking went:

(a) A threatening advance, 1 ♘c5, seemed like the right idea. The worst case may be 1...♘xc5, after which 2 ♕xc5 would threaten 3 ♕f8+ and ♕xd8.

But this is where White ran into a dead end. He saw that 2...♔g7 3 ♕a7+ ♕f7 wouldn't give him the kind of edge he felt he deserved. He looked for a better move than 3 ♕a7+ but 3 ♕b6 didn't pass the test when he saw 3...♕d6.

(b) "How do we make progress?" White asked himself. He considered a second candidate, 1 ♗b3. But he saw that 1...♕d6 was sufficient.

(c) "There must be something else," White said and that led him to 1 b5. He knew it was positionally suspect because it dissolves the target pawn at c6. But it is forcing and might lead to favorable tactics after 1...cxb5 2 ♗xb5 ♘f8 3 ♕c7. If the attacked knight then goes to f7, White wins with ♗c4.

This looked promising. White rechecked to see if Black had an alternative to 1...cxb5 and played:

1 b5 ♘b6!

White had assumed 1...♘b6 was bad because of 2 bxc6 with a big threat of c6-c7. But now he saw that the line he had counted on, 2...♘xa4 3 ♕c1+ ♔g7 4 c7, would be fine for Black after 4...♕c8 5 cxd8(♕) ♕xd8.

White tried to juggle the ideas with 2 ♕c1+ and then 3 ♘c5. But that wasn't clear enough. Short of time, he said, "I have to make a move."

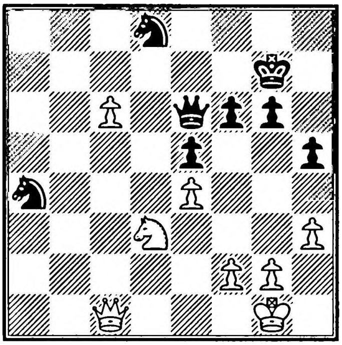
2 bxc6?

This is the result of both clock panic and tactical fatigue. If he had more time – or if 1 b5 had been his first candidate and his vision was fresher – he probably would have seen that c6-c7 is not a real threat.

2 ... ♘xa4

White believed he had at least a draw after 3 c7 ♘xc3 (overlooking 3...♘c6!). But he was still looking for a win.

3 ♕c1+ ♔g7



His first reaction was that 4 c7 must be good (again overlooking 4...♘c6!). Eventually he picked:

4 ♕a3? ♕xc6

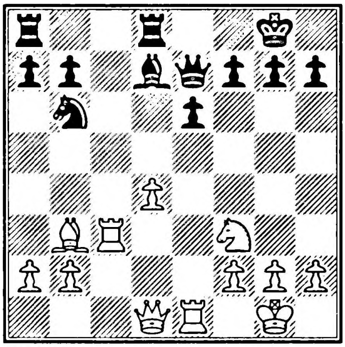
Now White saw that 5 ♕e7+ ♘f7 was hopeless. He resigned after 5 ♘b4 ♕d7 6 ♘d5 ♘e6 7 ♕f3 ♕f7. Another favorable position had been destroyed in a few minutes of clock chaos.

The easiest way to avoid situations like this is to never get into time trouble. But that's as unrealistic as saying the best way to stop smoking is to never start. In this chapter we'll examine how to make the clock less of an enemy.

BIG THINKS

Time controls have historically gotten more and more stringent. World championship matches once allowed players an hour to play just 12 or 15 moves. Even a generation ago, grandmasters could enjoy the leisurely pace of playing 40 moves in two and a half hours. Here's an example from those good old days.

Timman-Ree
Amsterdam 1984



White to play

White has candidates such as 1 ♘e5 that could be played on general principles and at little clock cost. He took 40 minutes, much of it devoted to calculating the consequences of:

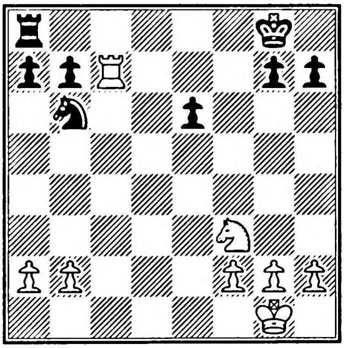
1 d5

He said he wasn't completely sure what those consequences were but felt he had analyzed the various branches well.

1 ... ♕d6

Black makes a practical decision. He avoids the complications of 1...♗b5 and the danger of possible oversights. But this comes at the expense of allowing White to force a superior endgame.

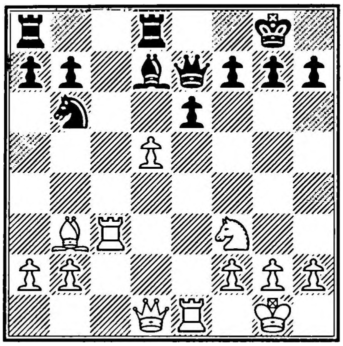
2 dxe6 ♗xe6
3 ♕xd6 ♖xd6
4 ♗xe6 ♖xe6
5 ♖xe6 fxe6
6 ♖c7



Black can get rooks off the board but the knight ending is bad (6...♖c8 7 ♖xc8+ ♘xc8 8 ♘g5 or

6...♖d8 7 ♔f1 ♖d7 8 ♖xd7 ♘xd7 9 ♘g5).

Appraising the two decisions, 1 d5! was worth a big think – at least it was in the days of "40 in two and a half." But 1...♕d6? was played much too quickly since Black could easily see how bad the ending could be.

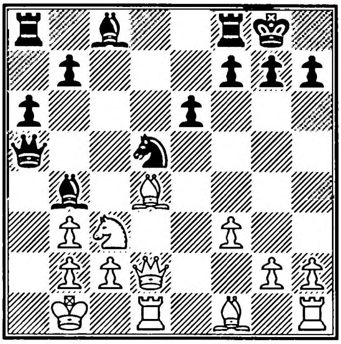


Black gave 1...♗e8 some consideration and correctly rejected it after seeing how good 2 ♖d3 was for White. But when he turned his attention to 1...♗b5 he rejected it because it didn't threaten anything, since 2...♘xd5? 3 ♗xd5 ♖xd5? 4 ♕xd5 costs a rook.

(In fact, White thought that 1...♗b5! 2 ♕d2 ♕d6 was solid for Black and that his best response would have been an admittedly unclear pawn sacrifice, 3 ♘d4 ♗e8 4 ♖d3 and then 4...♘xd5 5 ♘f5 exf5 5 ♗xd5.)

Today, with faster controls, players have to be more discerning, more budget-minded with their minutes. Taking a lot of time to find a good move can be, by itself, a blunder.

Akopian-Anand
Armenia-World match 2004



White to play

1 ♗c4

"My opponent made a serious error: thinking 40 minutes over a bishop sacrifice instead of quickly making the move he played in the game," Black said afterward. He meant that White was wasting his time calculating 1 ♗xg7 ♔xg7 2 ♕g5+ ♔h8 3 ♘xd5 because 1...♔xg7 wasn't the worst case. Black planned to reply 1...♖d8! after which he would stand better.

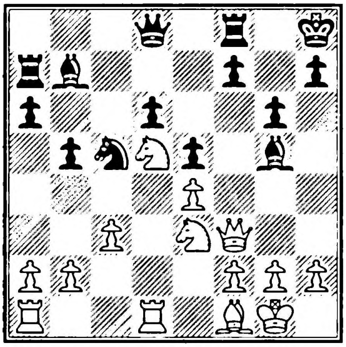
1 ... ♗xc3

2 bxc3 ♘e7

White's chances have improved on the board thanks to 1 ♗c4. But his overall chances may have declined because of the lost 40 minutes. He ended up losing a very favorable endgame.

Players often delude themselves by rationalizing – "Yes, I took 35 minutes on this move but it was a very good move so the time was well spent." However, the move they chose wasn't the only one affected by their big think. Taking that much time usually affects the quality of later moves which won't get the consideration they deserve.

Tiviakov-Shirov
Oakham 1992



White to play

Black has just played ...♖a7 and is ready to swing the rook to the kingside following ...f5. White's only reasonable forcing move is 1 b4 but it has drawbacks. Instead, he might consider 1 g3 followed by 2 h4 and 3 h5 to weaken the kingside. Or he could try 1 ♗d3 and ♗c2. But none of these looked terribly promising.

1 b4

White thought about 40 minutes before playing this – and that was a blunder. If he couldn't decide on one of the prime candidates in the first 15 minutes, he should have passed, even by playing a lame move such as 1 ♖ab1. Releasing yourself from the pressure of having to make a move is often the best move you can make.

Instead, he persisted in trying to justify 1 b4 and that meant analyzing a key branch, 1...♘a4 2 c4 f5 in deep detail. He saw that 3 exf5 ♘c3 wasn't pleasant. Neither was 3 cxb5 fxe4 4 ♕xe4 ♘c3 or 4 ♕e2 axb5 5 ♕xb5 ♗xe3 6 fxe3 ♗xd5 and 7...♘c3. But in the end he couldn't find anything better than 1 b4.

1 ... ♘e6?

Black never even considered 1...♘a4.

2 a4!

On the face of it, White's 40-minute investment has paid off handsomely. He went from a poor position to a slight edge. And the lost time didn't seem to matter because he was able to play the next few moves based on intuition (2...bxa4 3 ♖xa4 f5 4 ♖a5).

But when he was forced to calculate (4...♗h4 5 exf5 gxf5 6 ♘xf5) he found himself in trouble following 6...♘f4!. By then White had no time to analyze properly.

He missed a good reply, 7 ♕e3 ♖xf5 8 ♕xa7, and lost after 7 ♘xh4? ♘xd5!. “But this is a good lesson,” he wrote in *Inside Chess*. “One should never spend much time over one move.”

Nevertheless, one should “never” say never. There are occasions when a big think is worthwhile. They include:

(a) Potential turning points

(b) The end of the opening, and

(c) When a trend must be changed

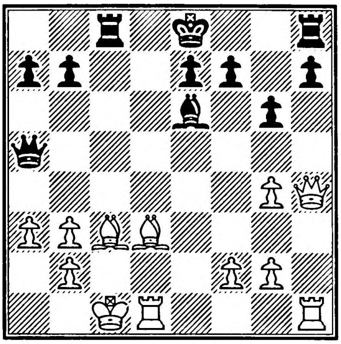
Let’s consider each in turn.

TURNING POINTS

The ideal occasion for a big think is when there is a candidate that qualitatively changes the status of the game. This can mean turning a bad position into a relatively even or double-edged one. Or it can be transforming an even game into a favorable one – or a favorable one into a win.

Recognizing such pivotal moments is easiest when it seems you can force a draw or a win.

Morozevich-Kasparov
Frankfurt 2000



Black to play

After an exchange on c3, Black continues with a forced sacrifice.

1 ... ♖xc3+

White saw that after 2 bxc3 ♕xc3+ he could move his king back and forth between b1 and c1 and Black would have nothing better than a perpetual check.

But White was reluctant to accept the draw because Black only had five minutes left to play 20 moves to reach the time control – and because White is a rook ahead after 2 bxc3. Before he agreed to shake hands he wanted to know where 3 ♗c2 would lead. He also wanted to know what happens if he doesn’t play 2 bxc3.

White devoted considerable thought to the first question, and determined that 3 ♗c2 ♗xb3 4 ♖d2 ♕a1+ 5 ♗b1 ♕xa3+ 6 ♖b2 would end the checks. But Black would still have at least a draw after 6...♔d7!, threatening 7...♖c8+. The only way to play for a win was:

2 ♔b1

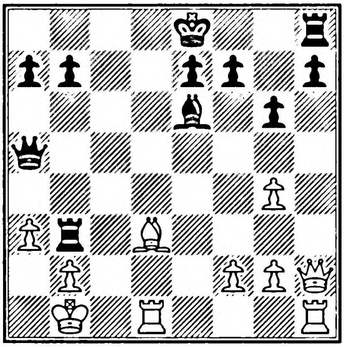
You should always be suspicious when you find yourself devoting considerably more time to a candidate that you reject than to the one you choose.

2 ... ♖xb3

Now 3 ♗c2 ♖b6 or 3...♕xa3 4 ♗xb3 ♕xb3 favors Black.

3 ♕h2

On h2 the queen stops castling (3...0-0?? 4 ♕xh7 mate) while threatening a murderous check on b8.



3 ... ♕c3!

Black threatens mate on b2 and provides a defense for his own king.

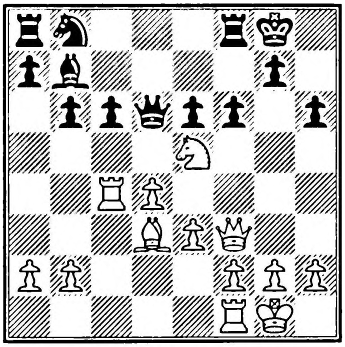
4 ♕b8+ ♗c8

5 ♖d2 0-0

Black has a safe king and will win a second pawn. White had nothing better than 6 ♕h2 h5! 7 ♖hd1 and was quite lost after 7...♗xg4. Even though he thought of the first diagram as a crucial point in the game he spent too little time on 2 ♔b1?? and 3 ♕h2?.

Another potential turning point occurs when you spot a candidate that appears to lead to a big, perhaps winning advantage. If the move is as good as it looks, then your subsequent moves will be easier to find and it won't matter that you've invested a lot of time on the winning move. But if you're wrong ...

Larsen-Donner
BBC Master Game 1979



White to play

White looked at 1 ♘g6 ♖f7 and concluded he would stand very well. But Black, with ...c5 coming up, would still be in the game. That led him to consider 1 ♕e4, threatening mate on h7.

He quickly determined that the knight couldn't be taken, and that 1...f5 would mean a clear-cut positional edge for him.

1 ♕e4

Black also recognized that 1...f5 was ugly. He focused on the only alternative. It was either very good or very bad and therefore had to be worth a big think.

1 ... fxe5??

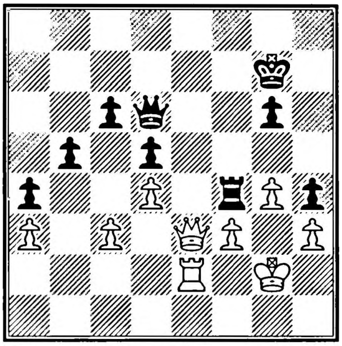
But Black moved too quickly. He looked only at 2 ♕h7+ and concluded he might be winning after 2...♔f7 3 ♗g6+ ♔f6 4 dxe5+ ♕xe5. "Well, perhaps I am mated but I don't see it immediately," he said.

2 dxe5

Black may have followed the guideline cited in the last chapter by weighing the rewards of 1...fxe5, an extra knight, against the risk of an oversight. But he didn't look enough for the oversight. It wasn't that hard to spot a forcing move such as 2 dxe5. Black was soon mated: 2...♕e7 3 ♕h7+ ♔f7 4 ♗g6 or 2...♕d8 3 ♕h7+ ♔f7 4 ♗g6+ ♔e7 5 ♕xg7+.

A third turning point arises when queens can be traded. Then you typically compare your chances in the endgame against your prospects in the middle game. You may be able to calculate the ending into the distant future. All of this can chew up clock time. But it's often worth it.

Bacrot-Salov
Enghiens-les-Bains 1999



White to play

The two players have been maneuvering for 20 moves with little change in the position. But now there is a forcing line 1 ♕e7+ ♕xe7 2 ♖xe7+, which could lead to favorable variations such as 2...♔h6 3 ♖e6.

The worst case is likely to be 2...♖f7, which reduces matters to a simple question: Is the ending after 3 ♖xf7+ a win or a draw? In pawn endings there is no such thing as "White has good chances" so the answer to that question is definitely worth a big think.

1 ♕f2?

White failed to get the right answer.

1 ... ♕xa3

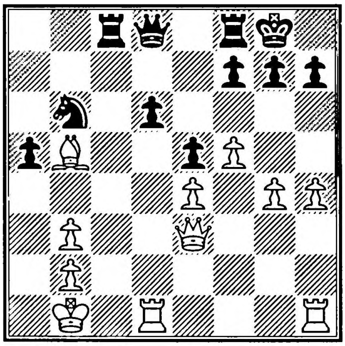
2 ♕xh4 ♕xc3!

White has no winning chances since 3 ♖e7+ can be met safely by 3...♔f8 and 3 ♕e7+ ♖f7 4 ♕e5+ ♔h7 5 f4 by 5...♕d3. A draw soon followed.

But White missed a golden opportunity. After 1 ♕e7+ ♕xe7 2 ♖xe7 ♖f7 3 ♖xf7+ ♔xf7 4 f4 Black loses through zugzwang in variations such as 4...♔f6 5 g5+ ♔f5 6 ♔f3 or 5...♔e6 6 ♔f2! ♔d6 7 ♔f3 ♔e7 8 ♔g4. That's a lot of moves to see ahead but there are just kings and pawns to worry about so a high degree of clarity is possible.

There is a parallel kind of error: Going into a bad endgame because you weren't willing to spend the minutes to justify playing an alternative. Black should have made the investment in the following case.

Acs-Hracek
Plovdiv 2003



Black to play

1 ... ♖c5?

A move that is fairly easy to calculate because White's choices are limited. Either he safeguards the bishop or:

2 ♕xc5!

Black clearly misevaluated this.

2 ... dxc5

3 ♖xd8 ♖xd8

4 ♖c1

White's edge is manifest and after 4...♖c8 5 ♖d1! ♔f8 6 ♖d6 ♖b8 7 ♖c6 he was winning.

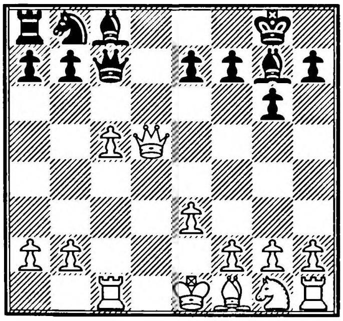
But this didn't have to be. The endgame is so bad that Black needed to spend some time on alternatives back at the diagram. Chief among them is 1...♕c7 with ideas such as 2 ♖c1 ♕b7 or 2 ♖h2 ♕c5 with a far superior endgame to what happened in the game (3 ♕xc5 ♖xc5 4 ♗a6 d5!).

TIME INTUITION

The turning points considered so far are easily identified as turning points. But several other situations arise that we don't realize were crucial until we look back at them during the post-mortem.

Mikhail Botvinnik's advice to his students was to develop clock-sense that would enable them to recognize when it paid to think a lot. "Knowing how to manage time should be intuitive," he told them. He might have had experiences like this in mind.

Tolush-Botvinnik
Soviet Championship 1939



Black to play

Black spent several minutes before playing an Exchange sacrifice on the previous move. Here he didn't like 1...♗xb2 because his initiative would wane after 2 ♖c2 ♗e6 3 ♕d2. But there was a more difficult choice between 1...♗e6 and 1...♘c6, which would enable him to develop his bishop more effectively on f5.

1 ... ♗e6

The reason he rejected 1...♘c6 was not because of its merits but because of the clock. White could reply 2 ♗c4, threatening ♕xf7+, after which 2...♗e6 is the natural defense. But that "called for calculation, and I was afraid of squandering the time which might be required in later complications."

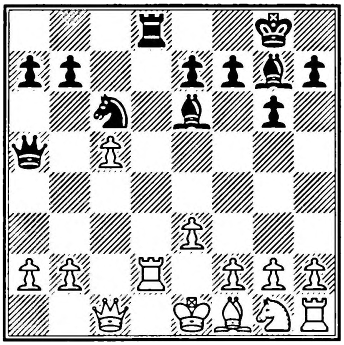
Black may be better after 3 ♕d2 ♖d8 4 ♕e2 ♕a5+. But it would have taken considerable analysis to feel sure. His intuition told him it wasn't worth it.

2 ♕d2 ♘c6

3 ♖d1 ♖d8

4 ♕c1 ♕a5+

5 ♖d2

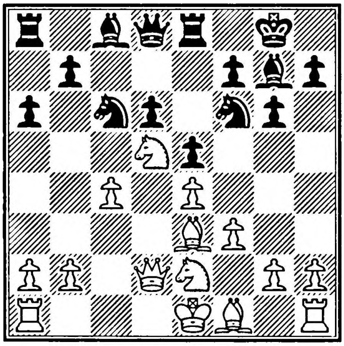


Black's clock management was sound since decisions more difficult than choosing between 2...♗e6 and 2...♘c6 lay ahead. For example, he had to spend some of that time to determine that 5...♖d5 was better than 5...♖xd2, 5...♗xa2 or 5...♘b4.

After 5...♖d5! 6 ♘c2 ♖xc5 7 ♘c3 he needed those preserved minutes to reject the tempting 7...♖xc3!? in favor of 7...♗xc3! 8 bxc3 ♖xc3 9 ♕b2 ♖a3. He won 17 moves later.

In contrast with the fairly minor choice that faced Black when he selected 1...♗e6 are the major crossroads you come upon when your opponent makes a move that threatens to shift the balance sharply in his favor. This was the case when Garry Kasparov set a personal record by taking more than an hour on a move.

Belyavsky-Kasparov
Moscow 1981



Black to play

White's last move, 1 ♘d5!, threatens to win material with 2 ♗b6 ♕d7 3 ♘c7 or establish a bind with 2 ♘b6.

1 ... b5!

You might think Black spent 68 minutes on this because he had to work out all the tactical resources after White wins the Exchange. But Black said he took that much time to make sure that everything else was worse.

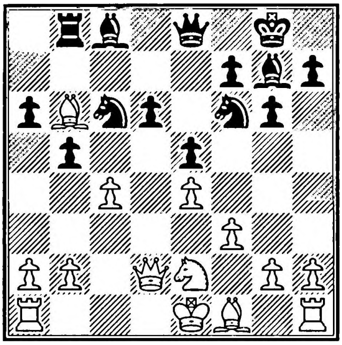
After much thought he concluded that the alternatives would be as bad as he feared: White would have a major positional edge following 1...♘d7 2 b4 or 1...♘xd5 2 cxd5 ♘e7 3 ♘c3, for example, and Black would have little chance of counterplay.

2 ♗b6 ♕d7

3 ♘c7 ♖b8

4 ♘xe8 ♕xe8

A big think by one player often provokes a big think by his opponent. Here it was White's turn. His bishop is attacked and he has four reasonable responses, three of them sharp (5 ♗c7, 5 cxb5 and 5 c5). The variations are very difficult and Black later determined that 5 cxb5 ♖xb6 6 bxc6 was best (although 6...d5 would have given him enough counterplay).

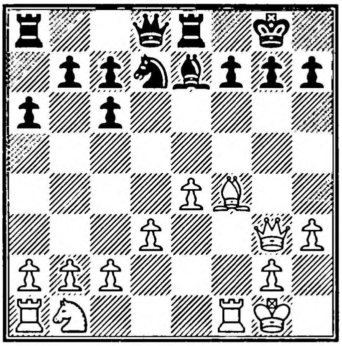


5 ♗e3?!

This may be the weakest of the options since Black added a pawn to his compensation (5...bxc4). His chances were no worse than White's after 6 ♘c3 ♗e6 7 ♗e2 ♘d4 and ...d5 and he eventually won.

One of the qualities that distinguishes great players is their sense – and it is a sense – of when a candidate move is worth heavy thinking. This goes beyond knowing whether there is a "best move" in the position. Often the difference between the best move and the second-best move is fairly minor, as it was when Black was trying to choose between 1...♗e6 and 1...♘c6 in the previous example. Big thinks are most worthwhile when finding the best move will substantially alter the course of the game.

Tiviakov-Adams
Candidates (PCA) match 1994



Black to play

Clearly 1...♖c8 isn't how Black wants to defend c7.

1 ... ♗d6

White hadn't considered this but soon saw the point. After a double capture on d6 Black can regain his pawn with ...♕b6+xb2.

White also realized that he could afford *not* to calculate. He could play 2 ♘d2 or 2 ♘c3 fairly quickly and retain an advantage because of his superior pawn structure.

But he just didn't believe 1...♗d6 was sound and realized it would take considerable calculation to see if there was a refutation.

2 ♗xd6! cxd6

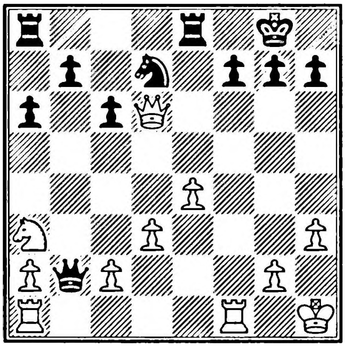
3 ♕xd6 ♕b6+

4 ♔h1!

During his big think White saw that 4 d4 ♕xb2 would permit him a pretty finish – 5 ♕xd7! ♕xa1 6 ♖xf7! ♕xb1+ 6 ♔h2 and mates. However, Black can puncture that balloon with 4...♖ad8 followed by a knight move.

4 ... ♕xb2

5 ♘a3!



White determined in his calculations that this move would ensure an edge. For example, 5...♖ad8 6 ♘c4 ♕xc2 7 ♕g3 and ♘d6 is good but 6 ♖ab1! ♕c3 7 ♖b3 ♕c5 8 ♕xc5 ♘xc5 9 ♖b6 is better.

His investment of time in 2 ♗xd6 would have been correct even if Black hadn't played the inferior 5...♘e5? 6 ♖ab1 ♕xa2 7 ♖xb7 ♖ad8?. White had an overwhelming position soon after 8 ♖e7! ♖f8 9 ♕c5.

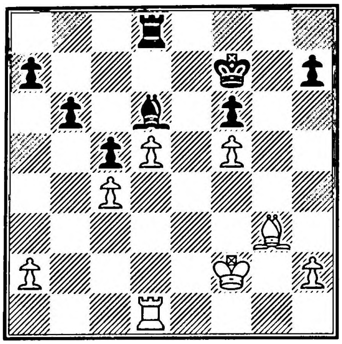
A second occasion that deserves a big think is:

THE END OF THE OPENING

There is no technical point when the opening is officially over but there is practical one. The opening ends when your book knowledge stops, when you look at the board and can't remember what has been played in this position before. It doesn't matter if it's just a matter of your memory failing you or if the position is genuinely original.

Big thinks are common in the opening because you have so much unused time. GM Alexander Chernin recalled in *Chess Herald* how he was able to invest 105 minutes on a single move because it was the first time in the game he had to think.

Chernin-Alterman
Beersheba 1992



Black to play

White's positional advantage is substantial but he needs a winning plan. One idea is ♖e1-e6. Another is a2-a4-a5xb6 followed by ♖b1xb6.

1 ... h5!

This was the first move White had not foreseen in his pre-game preparation (!). Black prepares to activate his pieces, e.g. 2 ♔f3 ♗xg3 3 hxg3 ♖g8 and 4...♖g5 is good because White can't respond g3-g4, and ♔f4 will be met by ...♖g4+.

Also, 2 a4 could be met by 2...h4! and then 3 ♗xh4 ♗xh2 or 3 ♗xd6 ♖xd6 4 ♔f3 ♖d8 5 ♔g4 ♖g8+ 6 ♔xh4 ♖g5 offers solid drawing chances.

White now spent one hour and 45 minutes "to think over, to evaluate the position anew." He felt he needed to spend that much because he realized White can't win easily, as he originally thought.

2 ♖h1!

If there were six reasonable candidates in the position, this might be the sixth one you'd consider. It is 100 per cent prophylaxis. The rook protects the h-pawn and allows White to meet a subsequent ...♗xg3+ with hxg3 and ♖xh5.

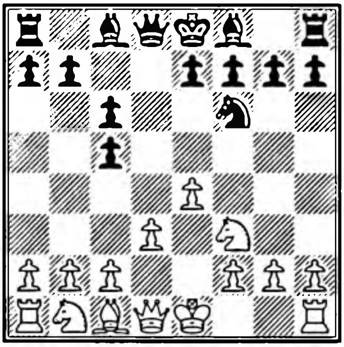
After 2 ♖h1! Black worried about how passive his position would be after 2...♗e5 3 ♔f3. Play continued 2...b5 3 cxb5 ♗xg3+ 4 hxg3 ♖xd5 5 ♖xh5, reaching a position White likely envisioned during his big think. The 105 minutes were worth it. Black resigned soon after 5...c4?! 6 a4 ♔g7 7 ♖h4! c3 (or 7...♖c5 8 ♔e2) 8 ♖c4.

Investing a fair amount of time on your first real move of the game is good policy because it gets you into a thinking rhythm. You aren't in that rhythm when you play 1 d4 or 1 e4 or for the next several turns. You are just repeating moves you've played before. This may explain why great players such as Sammy Reshevsky and David Bronstein often took huge amounts of time in the opening. They established in their mind the contours of the middlegame, the positional plusses and minuses and tactical ideas lurking in it. They lived off the contours for 5-10 moves and sometimes much more until the position had significantly changed.

Another appropriate moment to spend time is when you are changing the contours such as by advancing a center pawn.

Bologan-Lautier
Poikovsky 2003

1	e4	c5
2	♘f3	♘c6
3	♗b5	♘f6
4	♗xc6	dxc6
5	d3	



Black usually plays moves such as 5...g6 and 5...♗g4 here.

5	...	♘d7

It doesn't matter whether this was a new move or not. (It was.) As long as it was new to White, it forced him into a big think.

Black's move prepares ...e5. White should spend some time here to determine whether that's a good structure for Black. (It is). Then he should decide whether he should stop him.

6 e5!

This takes advantage of Black's last move, compared with 5...g6 6 e5?! ♘d5 when Black's knight is immediately well placed. In deciding to push his pawn White knew the new structure would favor him and after 6...♘b6 7 ♘bd2 ♗f5 8 0-0 e6 9 b3! ♗e7 10 ♗b2 0-0 11 ♖e1 a5 12 a4 ♘d5 13 ♘e4 he had an excellent game.

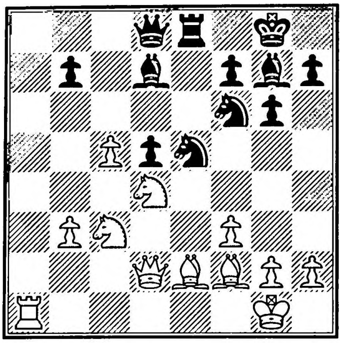
The third and most subtle situation when a big think is likely to be worthwhile arises when you must change a trend.

TREND CHANGES

It's the most subtle because a trend means the game is slowly slipping away from you. Novices rarely recognize such a trend. Improving amateurs may realize it but too late. Experienced tournament players may realize it in time but don't know what to do about it.

Masters, however, know when to panic.

Miles-Nunn
BBC Master Game 1976



White to play

The attitudes of the two players were in sharp contrast. "My position looks fairly dismal," said Black, who was playing a King's Indian Defense for the first time in his life. He saw a White knight going to b5, then d6, and other ominous developments.

White on the other hand was upbeat. He rejected 1 b4 because it cedes c4 to a Black knight. Why make concessions when your position is this good? Putting a knight on b5 seemed more promising. His hopes rising, White chose a third idea.

1 ♘a4

"I hadn't even considered that plan," Black said. If White can play ♘b6 and then ♖a7 or ♖a8 Black would be nearly paralyzed. He concluded his only hope was to try something "ridiculous" on the kingside.

1 ... ♘eg4!

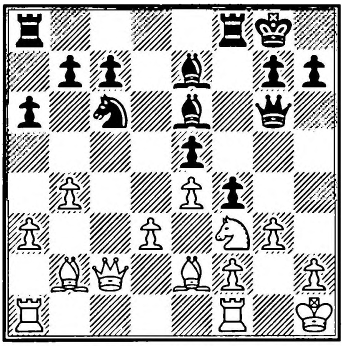
This wouldn't have occurred to Black a move before, when he regarded his position as merely poor, not yet desperate. It exploits White's last move, which removed the piece that defended e4. Now 2 fxg4 is met by 2...♘e4 followed by a strong ...♘xf2, e.g. 3 ♕e3 ♘xf2 4 ♕xf2 ♖xe2! 5 ♘xe2 ♗xa1 or 5 ♕xe2 ♗xd4+.

2 ♗h4 ♘e4!

Now 3 ♗xd8 ♘xd2 and ...♗xd4+ is awful. White tried 3 fxe4 ♕xh4 4 ♗xg4 ♕xg4 but was also losing. In retrospect, 1 ♘cb5! would have ensured White an edge. But the point here is that Black correctly panicked at the sight of 1 ♘a4 and found the refutation.

There is no foolproof way of recognizing the moment when you must change matters before your position is beyond redemption. But a tip-off is when you can spot a trend. If you can see that your opponent's position would steadily improve with routine moves – while you have nothing constructive to undertake – that's a bad, perhaps fatal trend.

Neverov-Rublevsky
Moscow 2003



Black to play

White seems to have fair chances in view of his pressure against the e-pawn, the prospect of a favorable center break with d3-d4, and his play along the g-file by means of ♖g1/gxf4. But he has one weakness and it's a big one – his king position.

1 ... ♕h5?!

Black threatens to win with the simple addition of more pieces to a kingside attack (...♗g4, ...♗d6, ...♖f6 and ...♖h6 or ...♖af8). This isn't just a plan. It's a juggernaut.

Black was attracted to 1...♕h5 even though White can threaten the queen by moving his knight. He went ahead when he apparently saw that 2 ♘xe5 can be answered by 2...f3, e.g. 3 ♘xc6 fxe2 4 ♘xe7+ ♔h8 followed by ...exf1(♕)+ or mate with ...♕f3+ and ...♗h3.

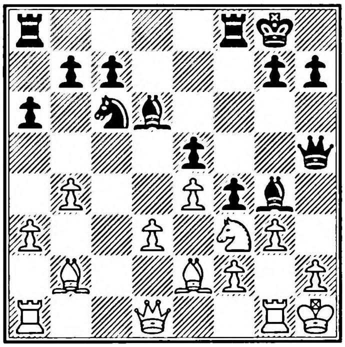
2 ♖g1?

White misses his moment. This was an ideal time to search for a trend-breaker. The leading candidate to do that is 2 d4, which opens the center and clears the third rank for defense (2...♗g4 3 ♕b3+! and 4 d5 with advantage or 2...exd4 3 ♘xd4 f3 4 ♗c4).

But what White really missed was 2 ♘xe5! can be played because on 2...f3 he can continue 3 ♗xf3! ♖xf3 4 ♘xc6. Then 4...bxc6 5 ♕xc6 ♕g4 6 ♕xa8+ ♖f8 7 f3! repulses the attack.

2 ... ♗g4

3 ♕d1 ♗d6



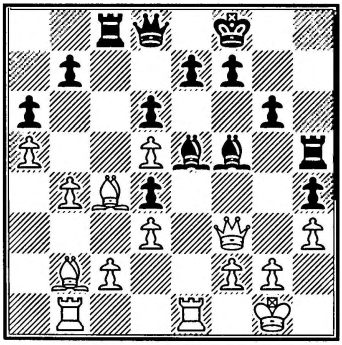
Black's moves are solid and easy to find – the tell-tale sign of a winning trend. The hard part of choosing 3...♗d6 was analyzing sharp lines such as 4 gxf4 ♖xf4 5 ♖xg4. Black is winning after 5...♕xg4 6 ♘xe5 ♕h4 7 ♘xc6 ♖xf2.

4 ♖c1 ♖f6

The threats such as 5...♖af8/6...fxg3 are too much. White collapsed soon after 5 gxf4 ♖xf4 6 ♖g3 ♖af8 7 ♔g2 ♘d4! 8 ♗xd4 exd4 and a double capture on f3.

Trend-spotting is more difficult when it is quiet moves, not aggressive ones like ...♗g4 and ...♖f6, that can improve your opponent's game. If you sit in White's chair, the next diagram seems to favor him. His pieces are better placed than Black's and the d-pawn seems vulnerable. But when you start looking at matters from Black's point of view you get a new perspective.

Kasparov-Leko
Linares 2003



White to play

Black can improve his position in simple ways but White cannot. Black can play for the opening of the kingside with ...g5-g4, for example. That would require a good deal of preparation, including moves such as ...♖c7, ...♕c8, ...f6, ...♔f7 and ...♖h8-g8. If, following those measures, Black decides against ...g5-g4 he can also try a promising Exchange sacrifice on c4.

On the other hand, as White scans the board for his own candidates there are no strong ideas suggested by tactics, general principles, intuition – or anything else. Opening up the queenside with b4-b5 or the center with c2-c3, even if well-prepared, looks dubious. So after a deep think:

1 ♖e2 ♖c7

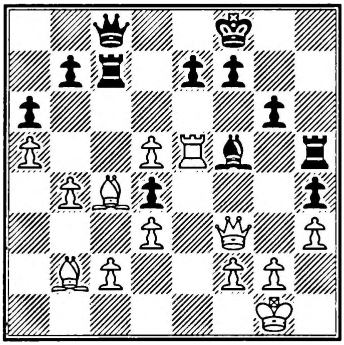
On 1...♕d7 2 ♖be1 White is ready to change the trend with 3 ♖xe5! dxe5 4 ♖xe5 and ♗xd4, with excellent compensation.

2 ♖be1 ♕c8

Now 2...f6 would stop the Exchange sacrifice. But Black's loosening of his pawn structure would allow White a different sack – 3 ♖e4!, intending 4 ♗xd4. Then 3...♗xe4 4 ♖xe4 followed by 5 ♕e2 and 6 f4 is dangerous for Black.

3 ♖xe5! dxe5

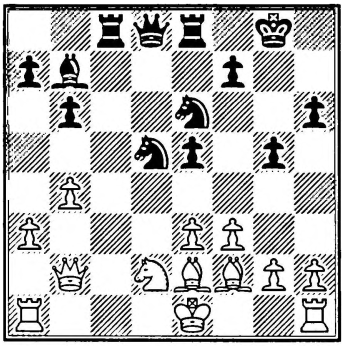
4 ♖xe5



If White wins the d-pawn he will have enough material compensation and more than enough positional compensation (4...f6 5 ♖e1 ♔g7 6 ♗xd4). The trend has been halted and would be turning in White's favor. But Black felt sufficiently alarmed to invest some of his own time before playing 4...♖xc4! 5 dxc4 ♕xc4. They eventually drew.

In truth the sequence of events is often the opposite: First you notice that you don't have a good, "obvious" candidate. Only then do you see that your opponent has two or three useful moves that indicate a trend. White may have checked out ideas such as 1 ♗c1 followed by 2 ♗d2 and 3 b5 before he saw that Black had many more useful moves than him in the form of ...♖c7, ...♕c8, ...f6 etc. That led him to appreciate a crisis was at hand. Here's another case.

I. Sokolov-Timman
Dutch Championship 1998



Black to play

Black has nicely placed pieces but White can eliminate his development edge once he castles and gets his rooks to d1 or c1. That's a potential trend in White's favor.

This tells Black that he needs something sharper than defending his e-pawn with ...f6 or trying to reach an endgame with ...♕c7-c3. He looked at harassing White's pieces with 1...♘c3. But he saw that would only tie up his own pieces (2 ♗c4 ♘a4 3 ♕b3 ♕d7) after which White can launch an effortless kingside attack with 4 h4!.

1 ... e4!

To change the trend Black correctly realized a sacrifice would be necessary. He considered 1...♘ef4 2 exf4 gxf4 but that seemed inadequate.

2 ♘xe4!

Again, one big think provoked another. White recognized that 2 0-0 invites 2...♘c3, which is much stronger than a move before. It would favor Black after 3 ♘xe4 ♘xe4 4 fxe4 ♗xe4 or 3 ♗c4 ♕f6, threatening 4...♘e2+ and 4...exf3. This forced White to calculate the sequence that occurred.

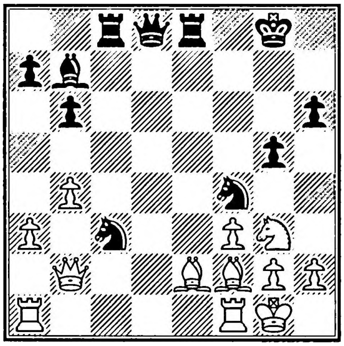
2 ... f5

3 ♘g3 f4

4 exf4 ♘exf4

5 0-0

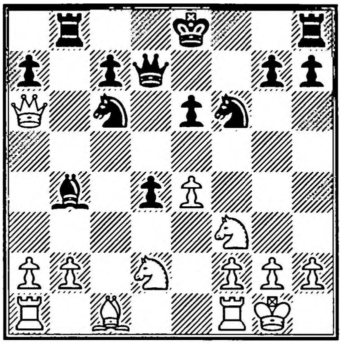
Black had a powerful initiative after 5...♘c3



...but White managed to survive the complications.

You can find yourself in a situation in which a big think is justified for two different reasons. The position at hand can both be the end of the opening and the start of a potentially damaging trend.

Belyavsky-Shcherbakov
Niksic 1997



White to play

1 ♕d3

This (new) move seems to violate general principles because, as Black noted in *Shakhmaty v Rossii*, "In childhood all of us are told that it's bad to blockade a passed pawn with a queen." A queen can be attacked by so many weaker pieces that its blockade is usually broken with ease.

But Black didn't reply quickly. As he studied the position further he realized 1 ♕d3 was actually a pretty good move. White is ready to play a favorable 2 e5 and then 2...♘g4 3 ♕e4 (compared with the immediate 1 e5? ♘g4 2 ♕e2 ♕d5).

Black also appreciated that while his pieces were active, his pawn structure "is hopeless." If White is allowed to coordinate his forces smoothly he would have the advantage, e.g. 2 ♘c4, a2-a3, and ♗d2 or b2-b4/♗b2.

1 ... ♗xd2!

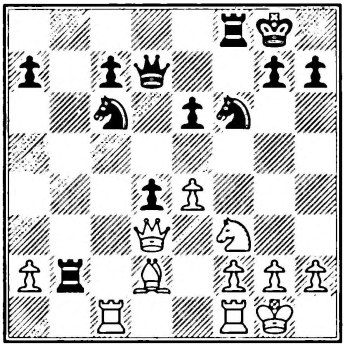
2 ♗xd2!

White wants to avoid ...♘e5. For example, 2 ♘xd2 0-0 3 a3? allows 3...♘e5! (4 ♕g3 ♘h5! 5 ♕xe5? ♖b5 traps the queen or 4 ♕h4 ♘f4).

2 ... ♖xb2!

Black can't play quietly because b2-b3 or b2-b4 would favor White.

3 ♖ac1 0-0

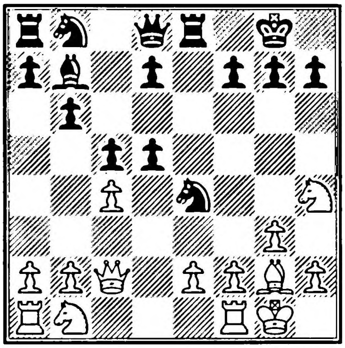


The position has become messy but this is fortunate for Black, who would be losing in a neater situation. White can use the c-file as compensation for his lost pawn. But after 4 ♖c5 ♘g4!, with the idea of ...♕d6/...♖xf3! and ...♕xh2 mate, he was back in the game.

DON'T TOUCH THAT PIECE

Two final points about big thinks. In Chapter 2, we saw how valuable it was to examine the positionally desirable move even when we might reject it out of hand for other reasons. The corollary is: When you're about to play a move you feel is forced – and which you know to be positionally dubious – think again.

P. Nikolic-Korchnoi
Wijk aan Zee 1984



White to play

1 ♘c3

Triple purpose: White develops, adds pressure to the center and tries to eliminate Black's best piece.

1 ... ♘xc3?

Black knew this was bad. White gets a super center now.

2 bxc3 ♘c6

3 cxd5!

Much better than 3 ♗xd5 ♘a5.

3 ... ♘e5

4 ♖fe1

And White had the edge after f2-f4 and e2-e4. The game continued 4...d6 5 f4 ♘g6 6 ♘xg6 fxg6 7 e4. White's center was so strong that Black took his chances with 7...g5!? 8 e5.

However, this was unnecessary. After 1 ♘c3 Black should have tried to find the tactics that would allow him to play 1...♘c6. It wouldn't be hard to see the zwischenzug 2...♘d4. For example, 2 ♘xe4 ♘d4! or 2 cxd5 ♘d4 3 ♕-moves ♘xc3 and 4...♘xe2+.

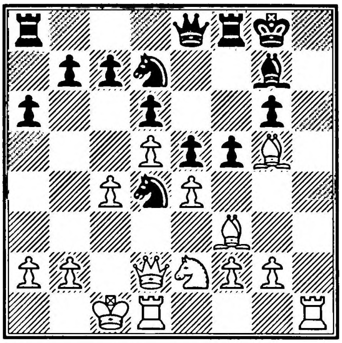
The key variation that Black has to investigate is 2 ♘xd5. Black gave up on 1...♘c6 when he saw that 2...♘d4 3 ♕d3 would get him into trouble (e.g. 3...♘xe2+ 4 ♕xe2 ♘xg3 5 ♕xe8+! ♕xe8 6 hxg3 when the pieces are much better than the queen).

However, Black had a strong alternative in 2...♘b4! with good play after either 3 ♘xb4 cxb4 and ...♖c8/...d5 or 3 ♕d1 ♘xd5 4 cxd5 ♕f6.

Here's a similar example.

Milov-Forster

Swiss Team Championship 2003



Black to play

White has just castled and is ready to double rooks on the h-file or take other favorable kingside action.

1 ... ♘xe2+?

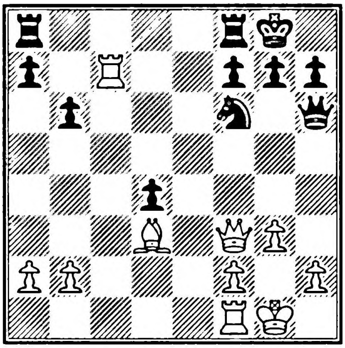
A criminal move. The knight was Black's best piece. If White had been the one to force it off the board with ♘xd4, both of Black's remaining minor pieces would improve in scope after ...exd4. But after 1...♘xe2+?, Black received no such compensation and within 10 moves White had a winning edge.

Before your fingers touch a great piece like the d4-knight, you should invest a good deal of thought on the alternatives. Black's natural bid for counterplay is 1...fxe4. Here it leads to promising play after 2 ♗xe4 ♖xf2 and a bit of calculation would reveal he stands well after 3 ♖de1 ♘c5.

MOVING ON

The result of a big think may be a "big move," something that changes the character of the game such as 1...b5! on p.223 or 1...e4! on p.231. But there is no guarantee that you'll end up with a big move. You may discover, after spending 20 minutes, that the sacrifice you want to play just isn't sound. At that point you may be tempted to devote another ten or 15 minutes to the search for a finesse that will make the candidate work. But the safer policy is to look for ...that solid alternative.

Gelfand-Zviagintsev
Biel 1995



White to play

White's vision directed him to 1 ♖xf7. It would win outright after 1...♖xf7?? 2 ♕xa8+ ♖f8 3 ♗c4+.

Looking further, White saw 1...♔xf7 2 ♗c4+ might also be a win because 2...♔e8 hangs the a8-rook and 2...♔e7 3 ♖e1+ ♔d6 is mated by 4 ♖e6+.

This indicated it was worth several minutes to analyze the only other defense, 2...♔g6. After all, 1 ♖xf7 could turn out to be a game-winner that would save him from a long endgame.

White can see that after 2...♔g6 he could draw with 3 ♗d3+ ♔f7 4 ♗c4+. But he expects more and looked at 3 ♕d3+, the only forcing alternative.

The complications are immense (3...♔h5 4 ♕d1+ ♔g6? 5 ♕c2+! ♔h5 6 ♗e2+! ♘g4 7 h3 with a strong attack, or 4...♘g4! 5 h3 ♕f6 6 hxg4+ ♔h6 etc.).

In danger of drowning, White bailed out with:

1 ♖e1

A simple and good move which threatens 2 ♖ee7 as well as 2 ♖xf7! (since 2...♔xf7 3 ♗c4+ is much stronger).

1 ... ♖ae8?

White would have a very good endgame after 1...♖ac8 2 ♖xa7 ♕d2 3 ♕e2 ♕xe2 4 ♖xe2 but this is worse.

2 ♖xe8 ♖xe8

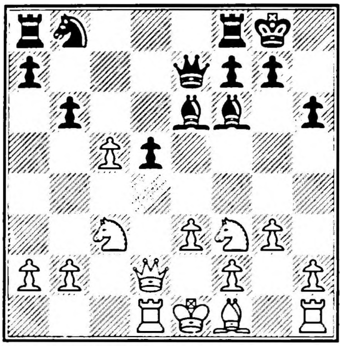
3 ♖xa7

The threats include 4 ♗c4 and 4 ♕c6. Black tried 3...♕c1+ 4 ♔g2

♕xb2 but resigned after 5 ♗c4 ♔h8 6 ♖a8! ♕b4 7 ♖xe8+ ♘xe8 8 ♕a8! (8...♕e7 9 ♗b5).

Of course, it is easier to settle for a solid candidate – when it leads to a good position – than it is to settle for a solid one when you know it means accepting an inferior position. White fell victim to this in the following example.

Psakhis-Geller
Erevan 1982



Black to play

White has just played dxc5.

1 ... ♖d8

White sank into deep analysis. Taking on b6 is risky. But not taking would acknowledge that Black has the better game due to his center pawns (after ...bxc5).

2 cxb6

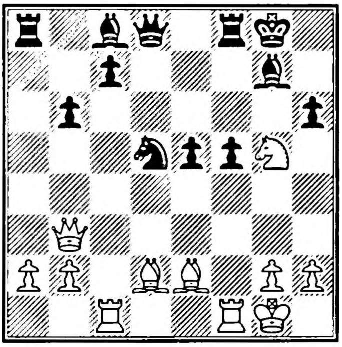
White took more than an hour before playing this. After all, if you're going to be worse, why not have a material edge?

2 ... **d4!**

This is why. Even spending an hour-plus isn't insurance enough against the risks of complications like this. White was worse after 3 ♗g2 ♘c6 (3...dxc3?? 4 ♕xd8+ ♕xd8 5 ♖xd8+ ♗xd8 6 b7) 4 ♘xd4 ♘xd4 5 exd4 ♗h3+ 6 ♔f1 ♖xd4 and soon lost. The better policy was to bite the bullet and accept an inferior middlegame by means of the solid 2 ♗g2! bxc5 3 0-0.

Worst of all is the situation that arises when there simply is no solid alternative. A notorious example of that was:

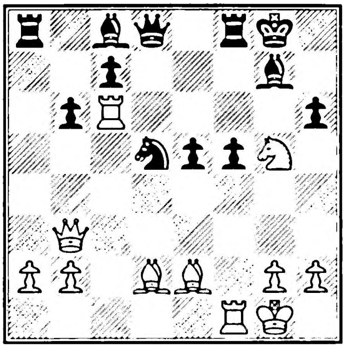
Taimanov-Fischer
Candidates match 1970



White to play

White's knight was hanging on g5 for four moves while he executed a series of tactical shots that steadily improved his position. Intuition tells him he should try to maintain the initiative. He looks for tactics but sees that 1 ♗c4 c6 and 1 ♗f3 e4 don't seem to work. It takes a bit more time to evaluate the second tier of candidates, such as 1 ♗b5 (1...hxg5 2 ♗c6 ♗e6). But they, too, have to be rejected.

1 ♖c6!



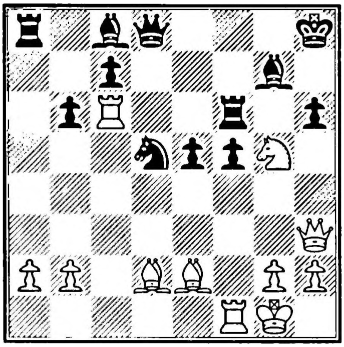
White's expectations continued to rise when he found this move. By blocking the c-pawn and stopping ...♗c6, he threatens ♗c4xd5+.

1 ... ♔h8

The king gets off a dangerous diagonal – but lands on a dangerous file because 2 ♕h3 would threaten 3 ♖xh6+ ♗xh6 4 ♕xh6+ and mate next.

White correctly concluded that this might be a turning point. (In fact, it was the decisive moment of the match. Had White won, the score would have been 2-1 in Fischer's favor and not the rout that the match became.)

White recalled how he felt a "genuine competitive thrill" as he realized how close he was to winning. This was reinforced when he saw that one of the natural defenses, 2 ♕h3 ♘f6, would allow him to add the bishop to the attack with 3 ♗c3. The only other way to stop 3 ♖xh6+ was 2...♖f6 and that had to be the worst case.



White realized there was no low-calc way out, no general principle move he could rely on in such a position. It occurred to him that he had to find a way to use the ♘f7+ idea. But 3 ♖xf6 doesn't work in view of 3...♕xf6. Also, 3 ♕h5 can be met by 3...♗d7 since 4 ♖xf6 ♕xf6 5 ♘f7+ isn't much (5...♔h7 6 ♘xh6 ♗xh6 7 ♗xh6 ♕g6!). Back to the drawing board.

White next examined 3 ♘f7+ ♖xf7 4 ♗xh6. But he found that it failed to the simple 4...♗f6. So he looked at one more tree branch, 3 ♗c4. That works after 3...♖xc6 4 ♘f7+.

But he couldn't find the follow-up to 3...f4 although he felt White must be winning. He spent several minutes trying to refute that defense. His intuition told him not to let go. "All my understanding of chess, all my experience and feeling convinced me," he wrote, that 2 ♕h3 should win.

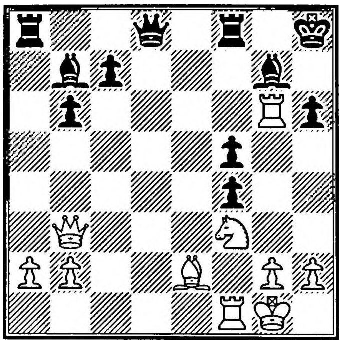
But he couldn't find the refutation. Reluctantly he turned to his second and third candidates, 2 ♖d1 and 2 ♗c4. But 2 ♗c4 fails to 2...♘e7, attacking pieces at c6 and d2. And 2 ♖d1 isn't forcing enough for the position (2...♗b7). He didn't mention a natural alternative, 2 ♘e6 ♗xe6 3 ♖xe6, apparently because he wasn't desperate enough to bet his future on 3...♕d7 4 ♖xh6+.

White ended up spending 72 minutes thinking about what to play in answer to 1...♔h8. He eventually chose a fourth candidate – which was awful.

2 ♘f3?

Only much later was White's intuition about 2 ♕h3 and ♘f7+ partially confirmed. After 2...♖f6 3 ♗c4 f4 he could play 4 ♕f3! ♗b7 5 ♖xf6!, with good chances (but not a win).

2 ... ♗b7
3 ♖g6 ♘f4!
4 ♗xf4 exf4



Black's troubles are over (5 ♖d1 ♕e7 6 ♖e6 ♕c5+ 7 ♔f1 ♖fd8 8 ♖xd8+ ♖xd8) and after one more error White was lost.

So at the end of the day, White was correct in sensing this was the turning point of the game. And he was right in feeling that it was worth spending a lot of time on his answer to 1...♔h8.

In addition, it was proper to rely on tactics as his primary cue for finding candidates. He followed the right procedure by looking for forcing moves in his analysis. And he was correct to search the various branches until he was sure he'd found the worst-case scenario.

White was accurate in his evaluation of lines such as 2 ♕h3 ♖f6 3 ♕h5 ♗d7. He did a good job of balancing clarity and risk. He juggled and tweaked the tactical ideas as best he could and rechecked ruthlessly.

But despite everything he played a bad move.

Selecting a good one really is a remarkably complex task.

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ISBN-10: 0-7134-8979-0

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